

Fig. 1

		Position 57		Position 67	
DQ		Nucleotide	Amino Acid	Nucleotide	Amino Acid
	DQB1*0201	GCC	A	ATC	I
	DQB1*03011	GAC	D	GTC	V
	DQB1*03012	GAC	D	GTC	V
	DQB1*0302	GCC	A	GTC	V
	DQB1*03032	GAC	D	GTC	V
	DQB1*03033	GAC	D	GTC	V
	DQB1*0401	GAC	D	ATC	I
	DQB1*0402	GAC	D	ATC	I
	DQB1*0501	GTT	V	GTC	V
	DQB1*0502	AGC	S	GTC	V
	DQB1*05031	GAC	D	GTC	V
	DQB1*05032	GAT	D	GTC	V
	DQB1*06011	GAC	D	ATC	I
	DQB1*06012	GAC	D	ATC	I
	DQB1*06013	GAC	D	ATC	I
	DQB1*0602	GAT	D	GTC	V
	DQB1*0603	GAT	D	GTC	V
	DQB1*06041	GTT	V	GTC	V
	DQB1*06042	GTT	V	GTC	V
	DQB1*06051	GTT	V	GTC	V
	DQB1*06052	GTT	V	GTC	V

Fig. 2

DRB1*0801	AGC	S	TTC	F
DRB1*08021	GAT	D	TTC	F
DRB1*08022	GAT	D	TTC	F
DRB1*0803	AGC	S	ATC	I
DRB1*08041	GAT	D	TTC	F
DRB1*08042	GAT	D	TTC	F
DRB1*08043	GAT	D	TTC	F
DRB1*09012	GTC	V	TTC	F
DRB1*10011	GAT	D	CTC	L
DRB1*10012	GAT	D	CTC	L
DRB1*111011	GAT	D	TTC	F
DRB1*111012	GAT	D	TTC	F
DRB1*111013	GAT	D	TTC	F
DRB1*11102	GAT	D	ATC	I
DRB1*11103	GAT	D	TTC	F
DRB1*111041	GAT	D	TTC	F
DRB1*111042	GAT	D	TTC	F
DRB1*1201	GTC	V	ATC	I
DRB1*12021	GTC	V	TTC	F
DRB1*12022	GTC	V	TTC	F
DRB1*1301	GAT	D	ATC	I
DRB1*13021	GAT	D	ATC	I
DRB1*13022	GAT	D	ATC	I

Fig. 3

DRB1*1303	AGC	S	ATC	I
DRB1*1304	AGC	S	ATC	I
DRB1*1305	GAT	D	TTC	F
DRB1*14011	GCT	A	CTC	L
DRB1*14012	GCT	A	CTC	L
DRB1*1402	GAT	D	CTC	L
DRB1*1403	GAT	D	CTC	L
DRB1*1404	GCT	A	CTC	L
DRB1*1405	GAT	D	CTC	L
DRB1*1406	GAT	D	CTC	L
DRB1*1407	GCT	A	CTC	L
DRB1*1408	GAT	D	CTC	L
DRB1*15011	GAC	D	TTC	F
DRB1*15012	GAC	D	TTC	F
DRB1*15021	GAC	D	ATC	I
DRB1*15022	GCC	D	ATC	I
DRB1*15023	GAC	D	ATC	I
DRB1*16011	GAC	D	TTC	F
DRB1*16012	GAC	D	TTC	F
DRB1*16021	GAC	D	CTC	L
DRB1*16022	GAC	D	CTC	L

Fig. 4

DQB1*050301(1)

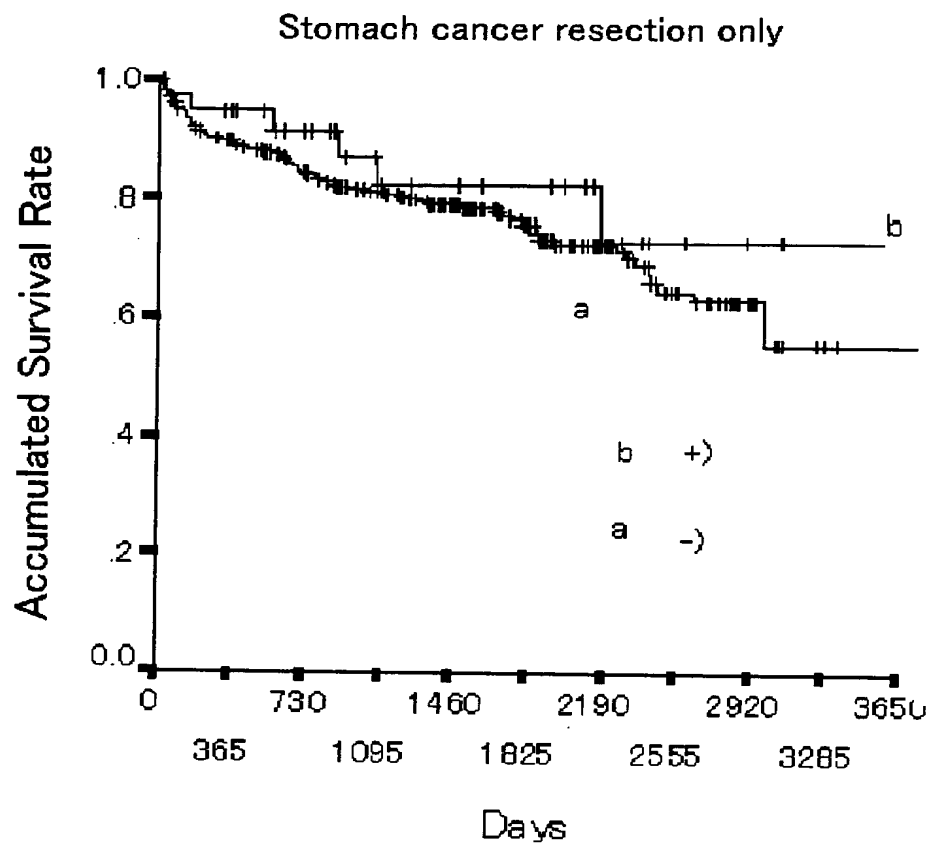


Fig. 5

DQB1*050301(2)

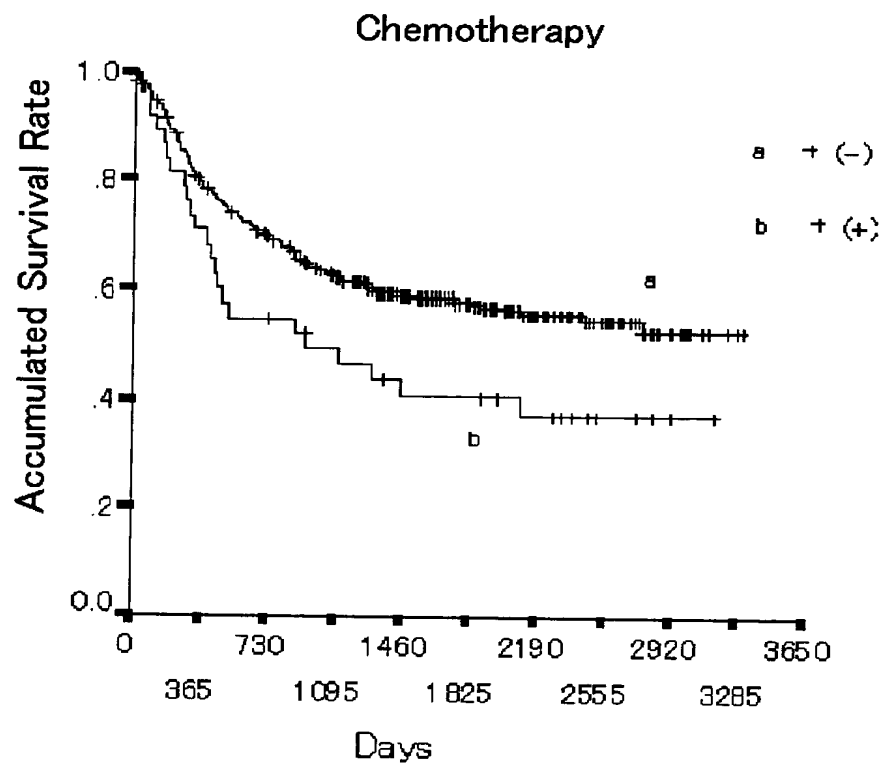


Fig. 6

DQB1*050301(3)

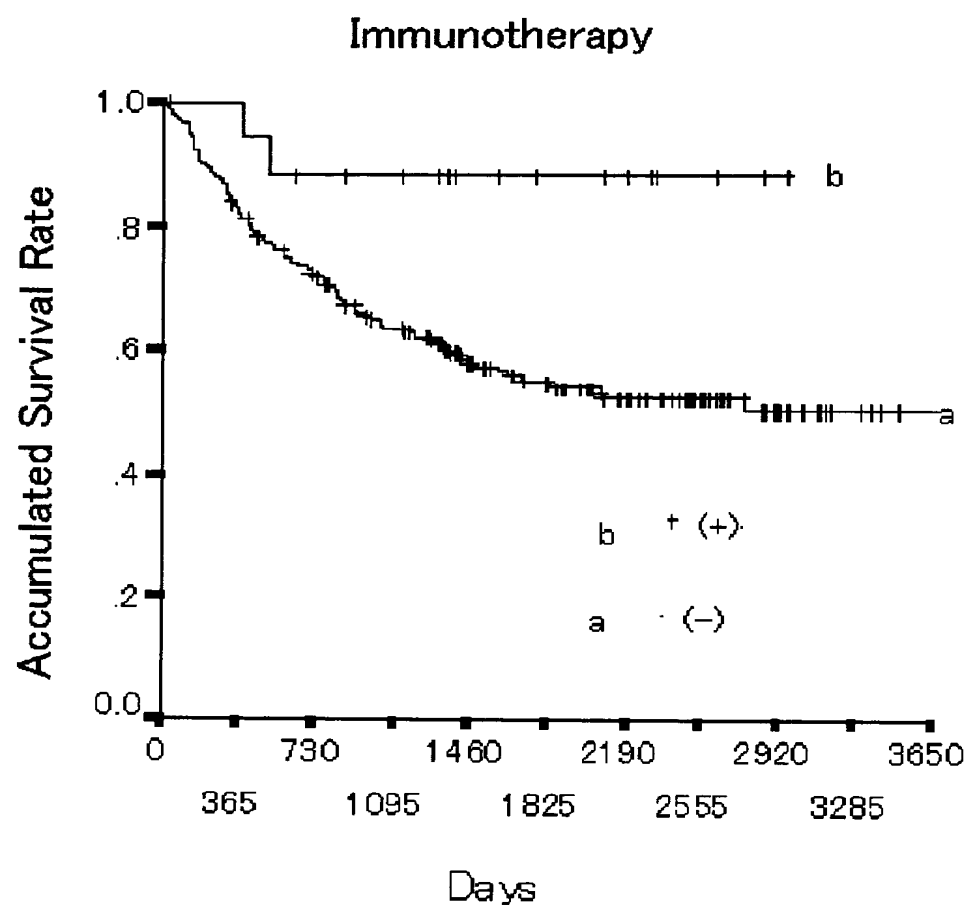


Fig. 7

DR57D-1

Stomach cancer resection only

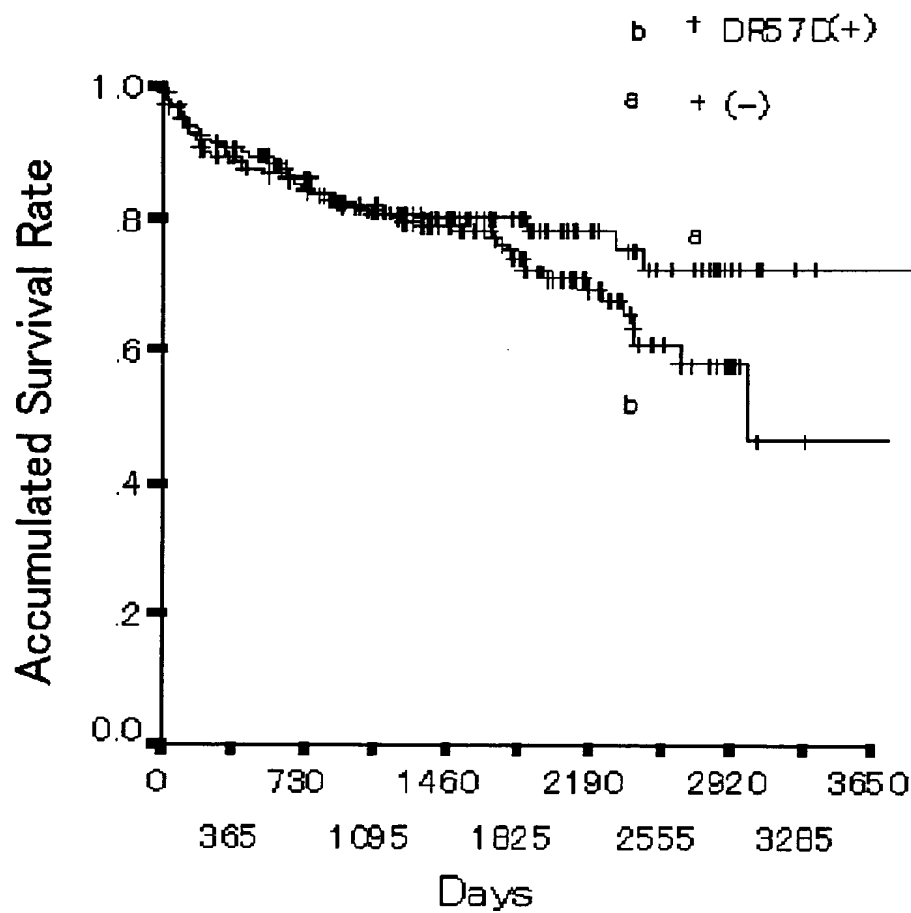


Fig. 8

DR57D-2

Chemotherapy

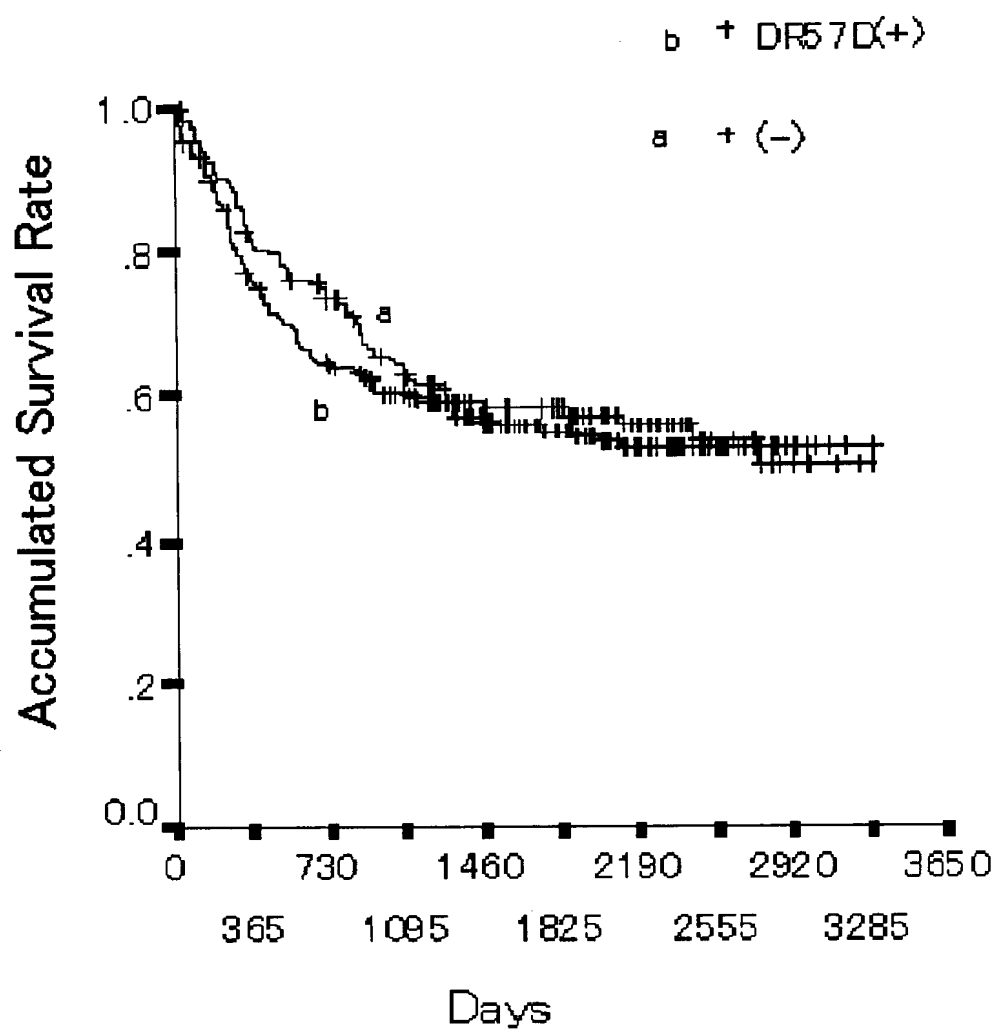


Fig. 9

DR57D-3

Immunotherapy

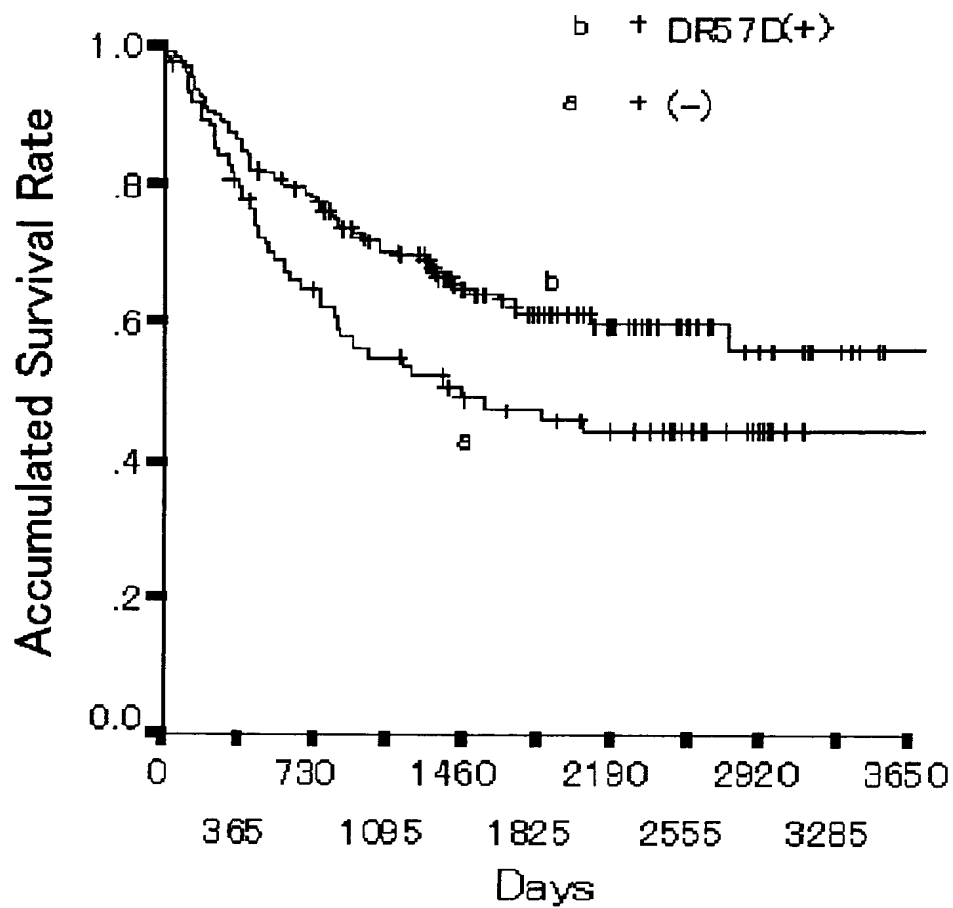


Fig. 10

DR67I-1

Stomach cancer resection only

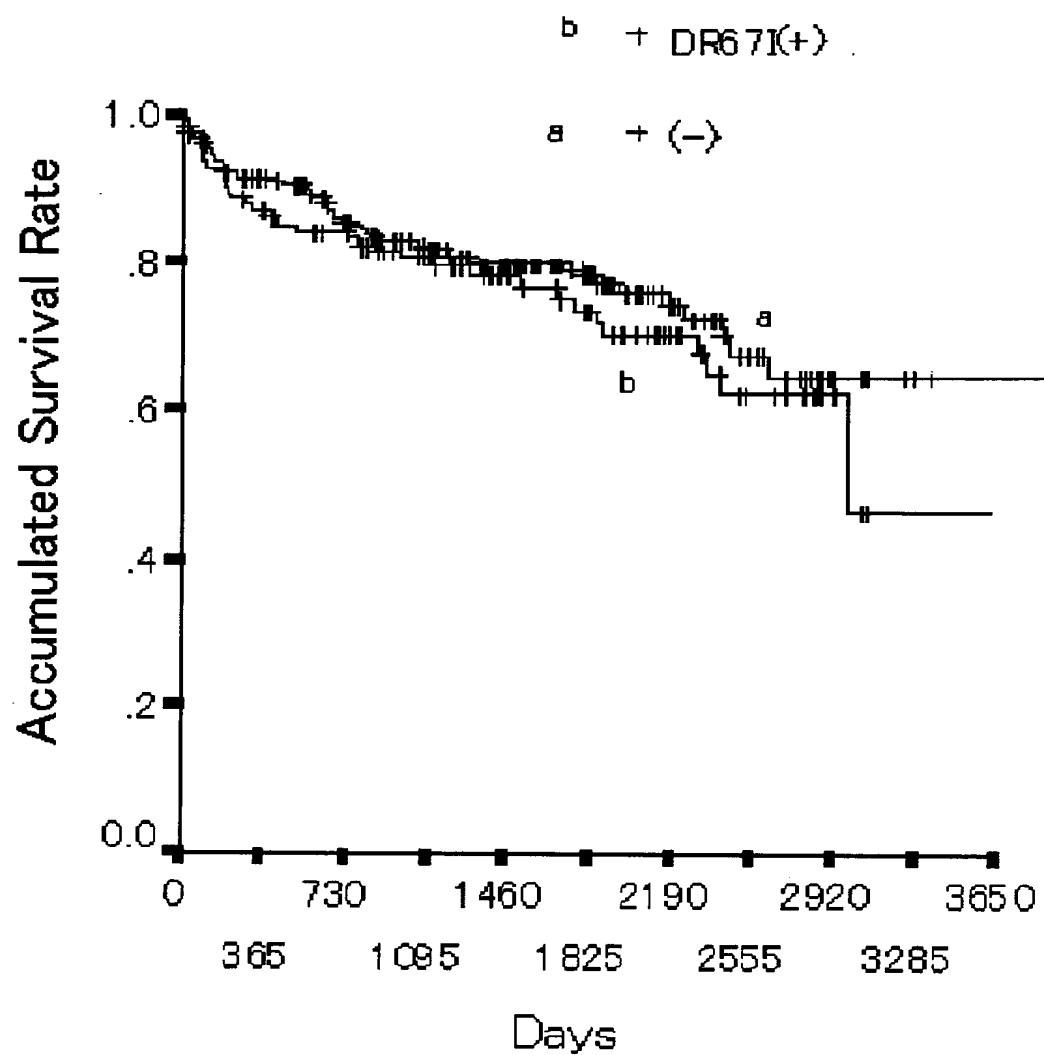


Fig. 11

DR67I-2 Chemotherapy

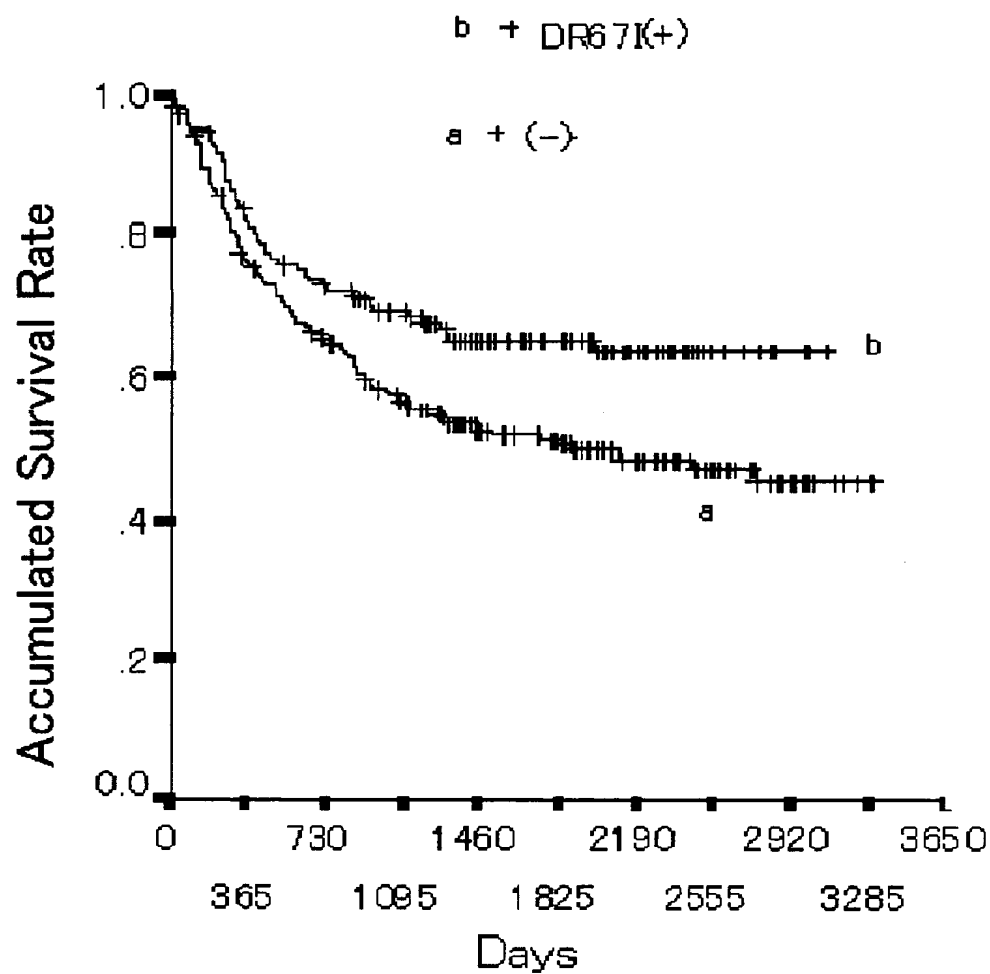


Fig. 12

DR67I-3

Immunotherapy

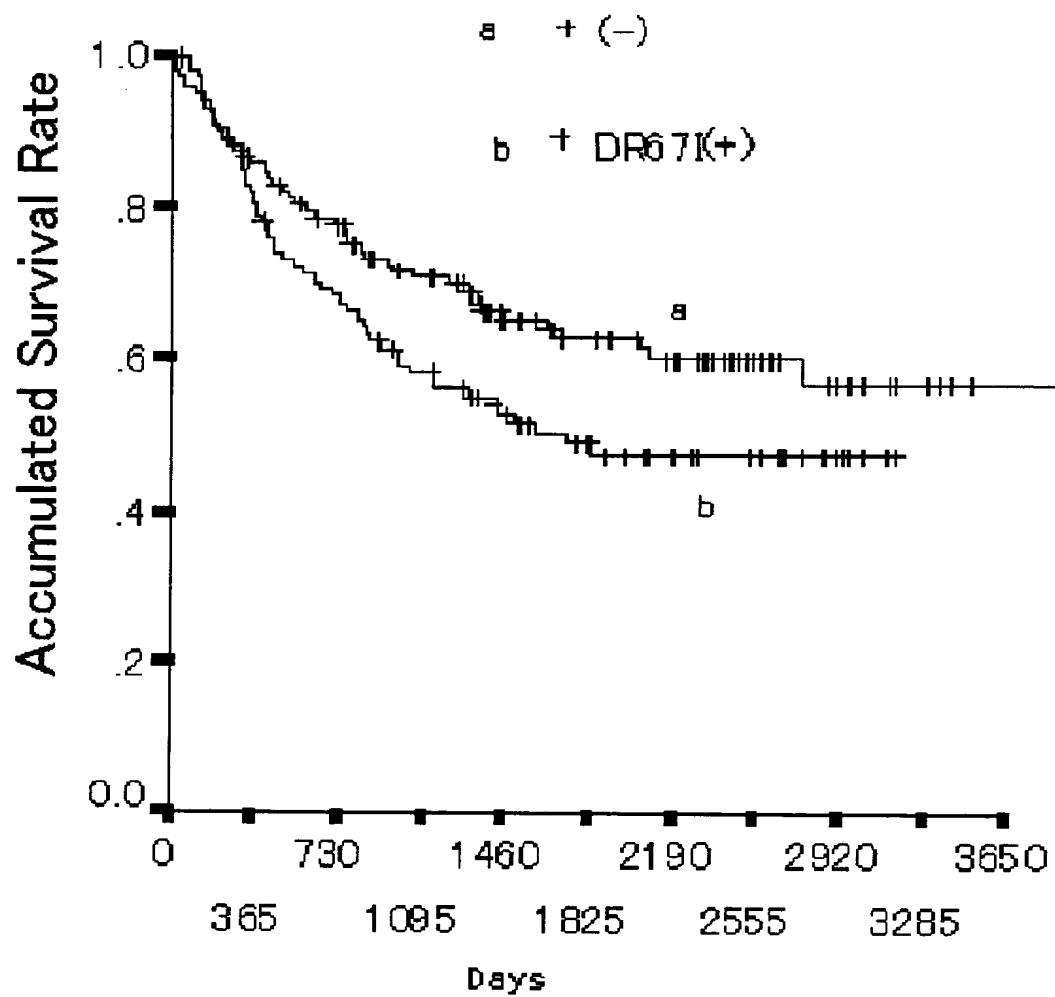


Fig. 13

DR67I,F,L-1

Stomach cancer resection only

d + DR67I(-)/

c + DR67I(+)/

b + DR67I(+)/F(+)

a + DR67I(+)/L(+)

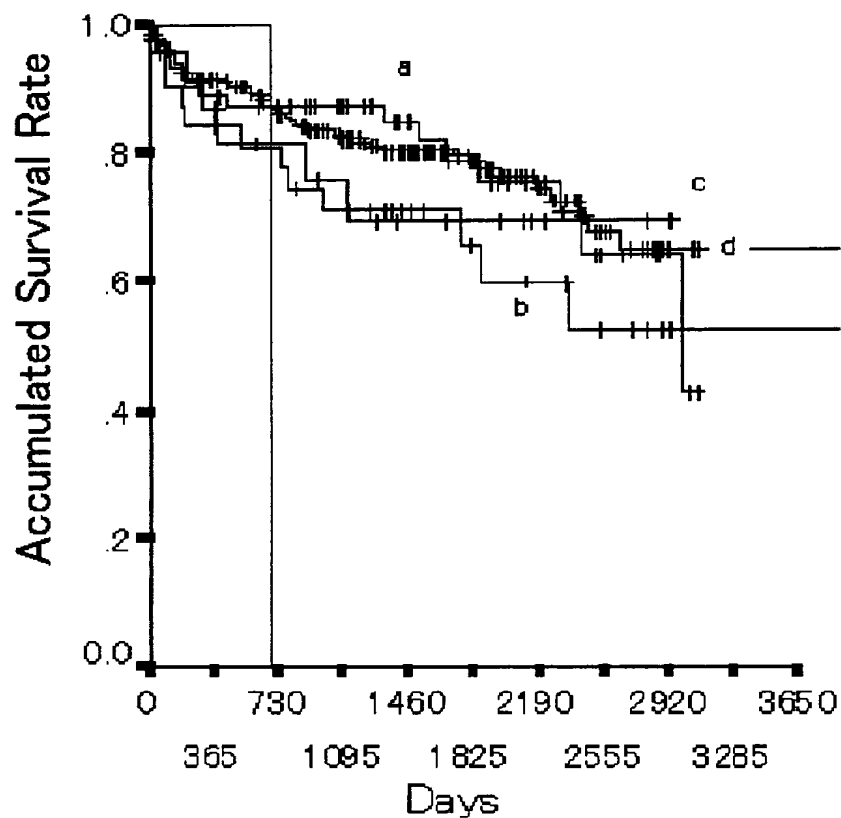


Fig. 14

DR67I,F,L-2

Chemotherapy

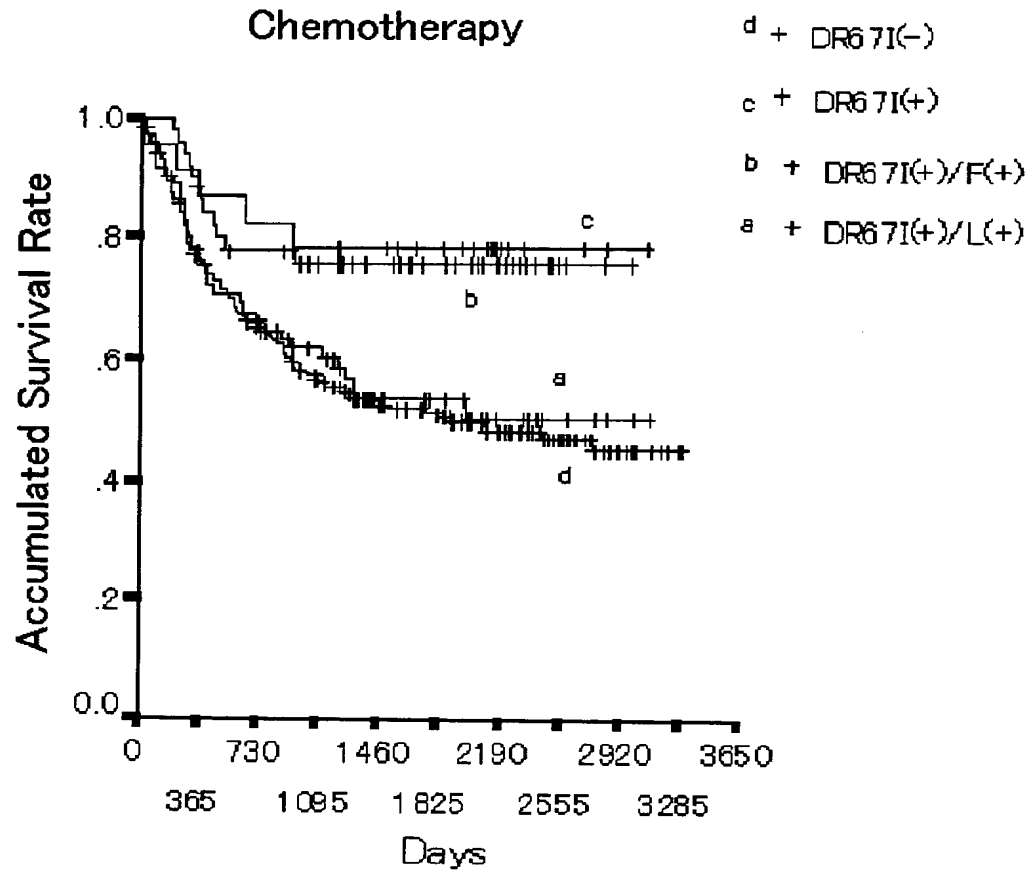


Fig. 15

DR67I,F,L-3

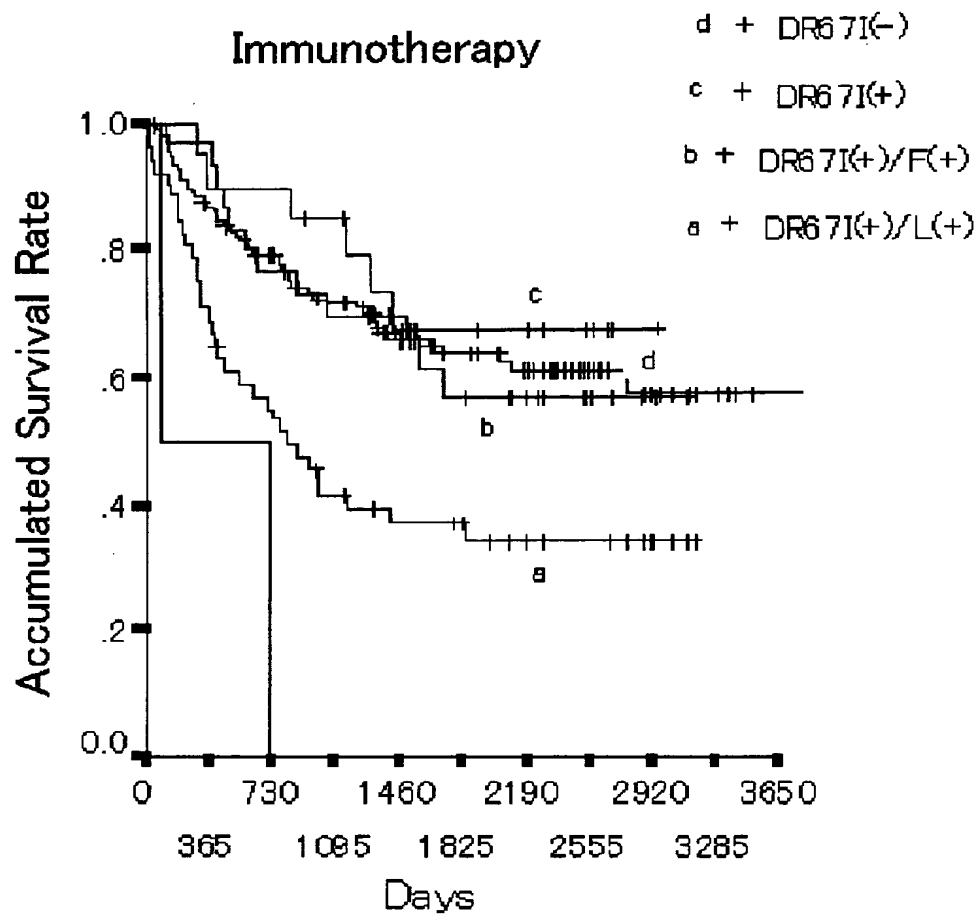


Fig. 16

DR57D-DR67I-1

Stomach cancer resection only

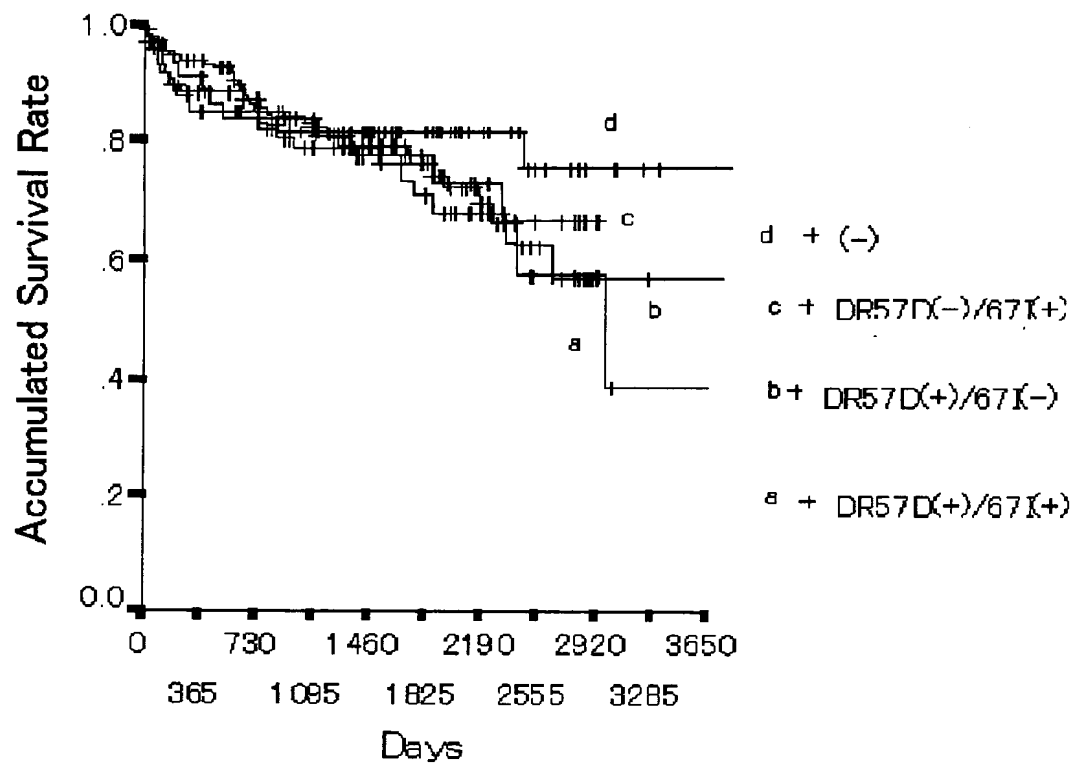


Fig. 17

DR57D-DR67I-2

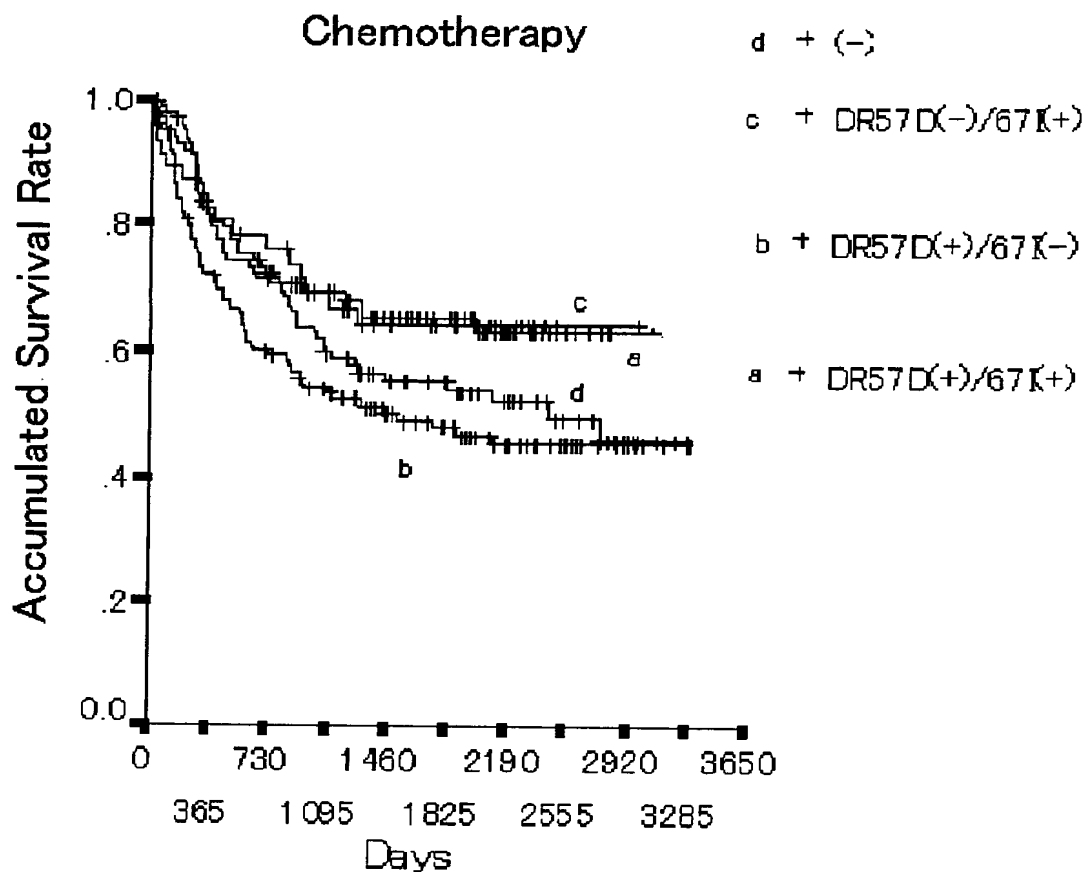


Fig. 18

DR57D-DR67I-3

Immunotherapy

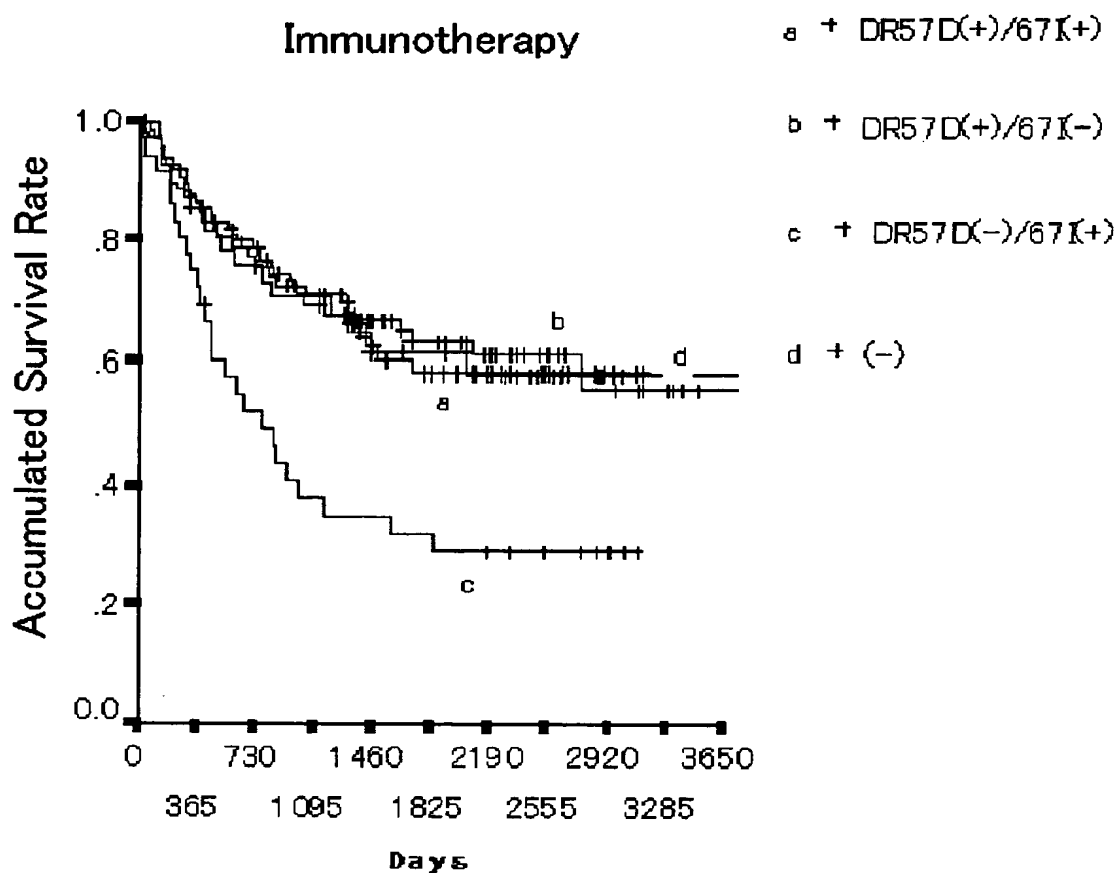


Fig. 19

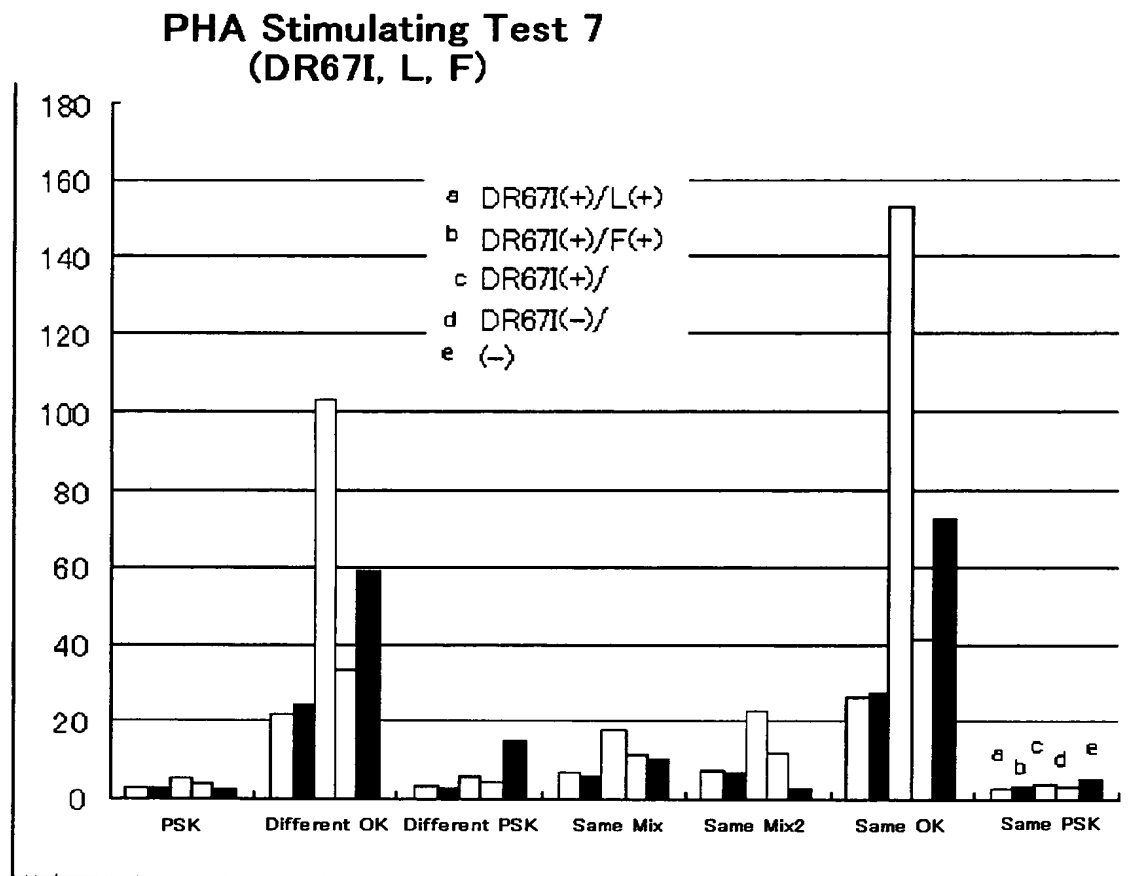


Fig. 20

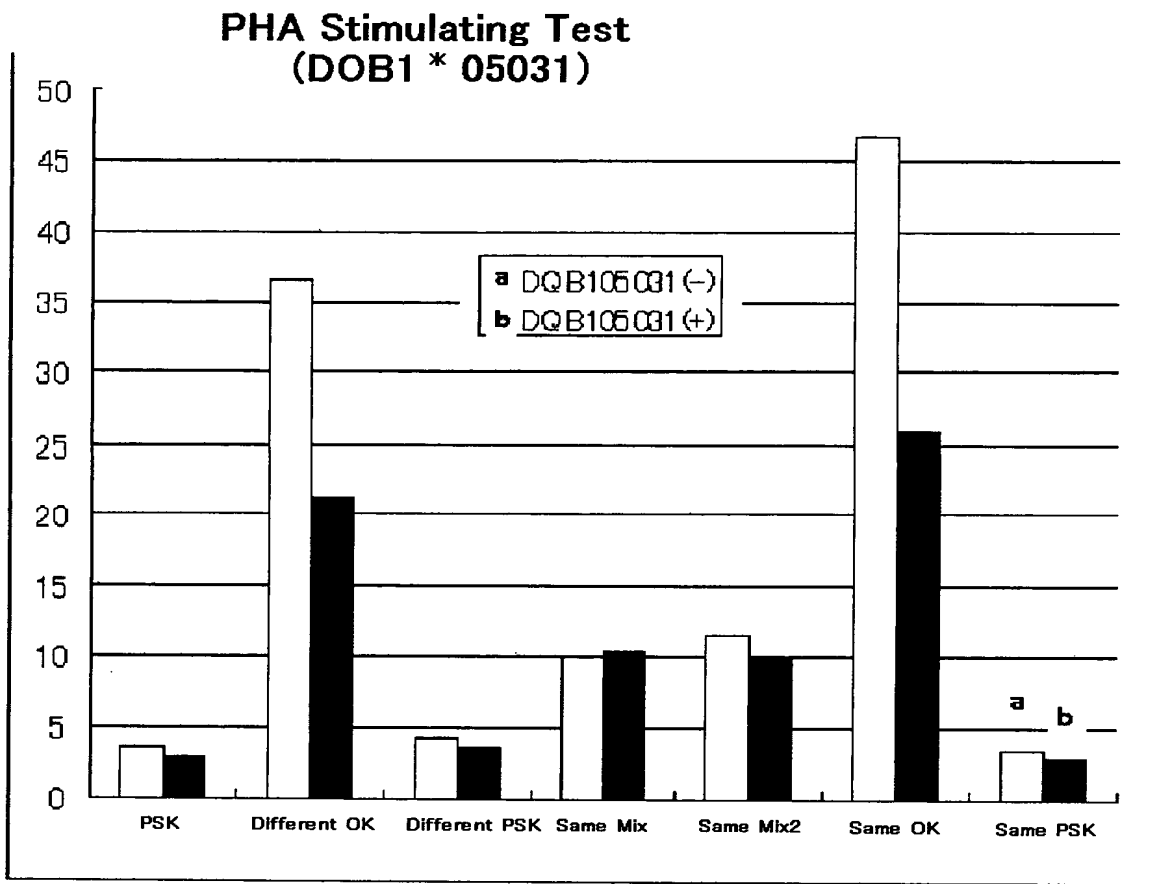


Fig. 21

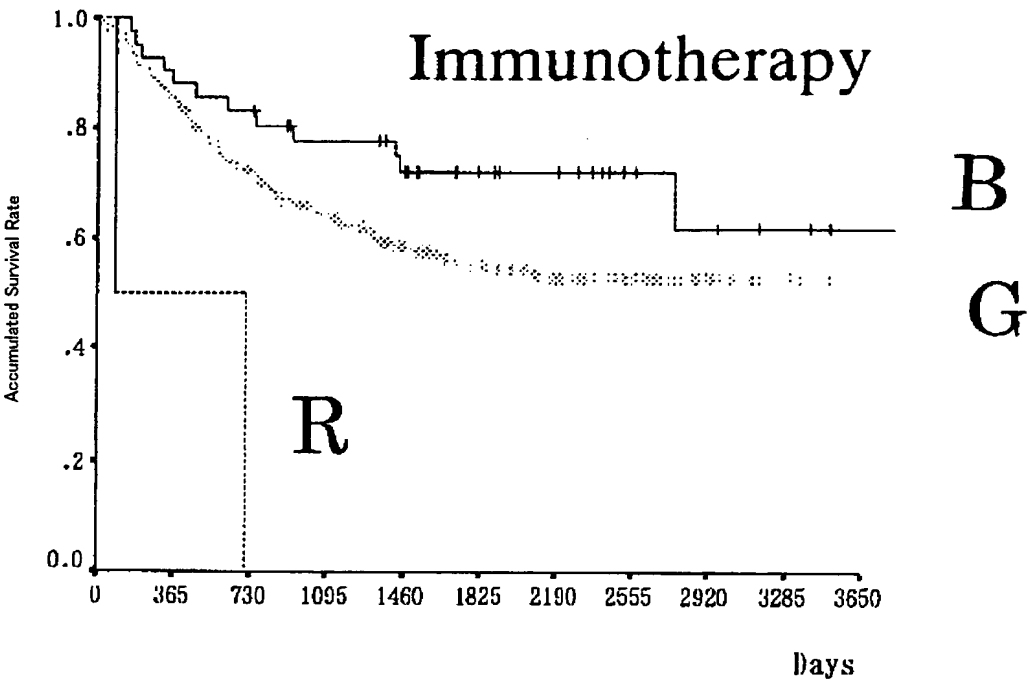


Fig. 22

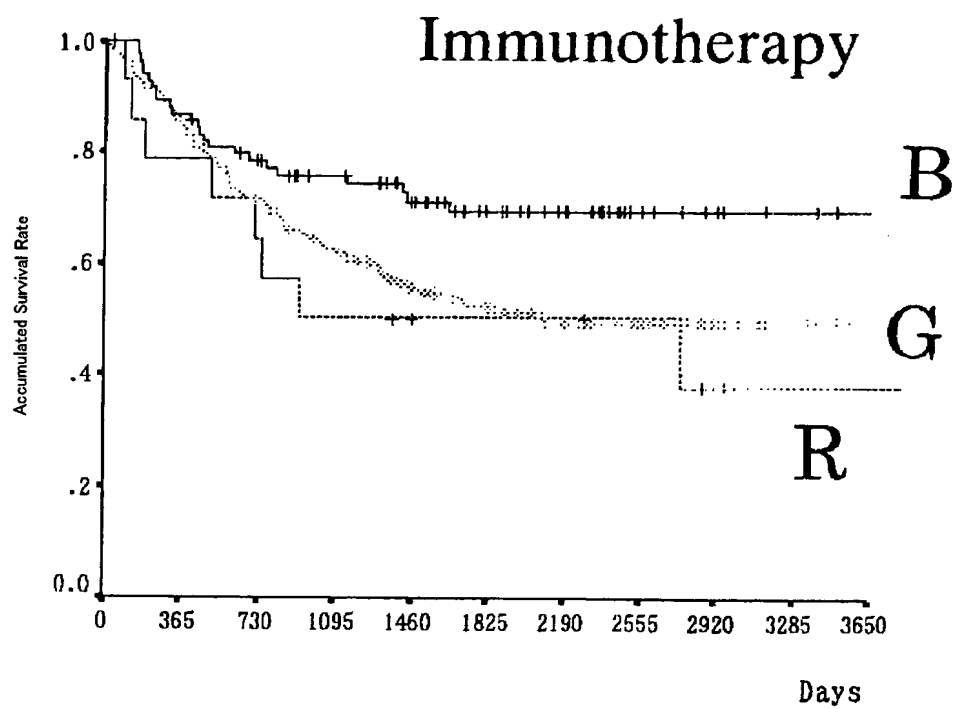


Fig. 23

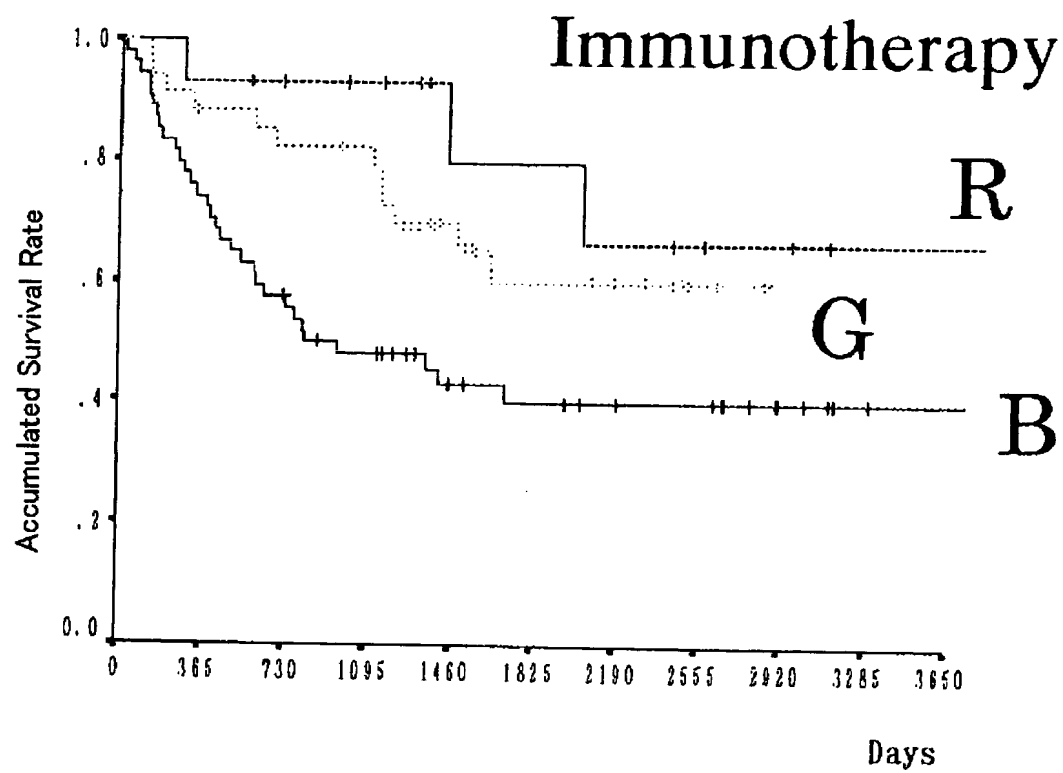


Fig. 24

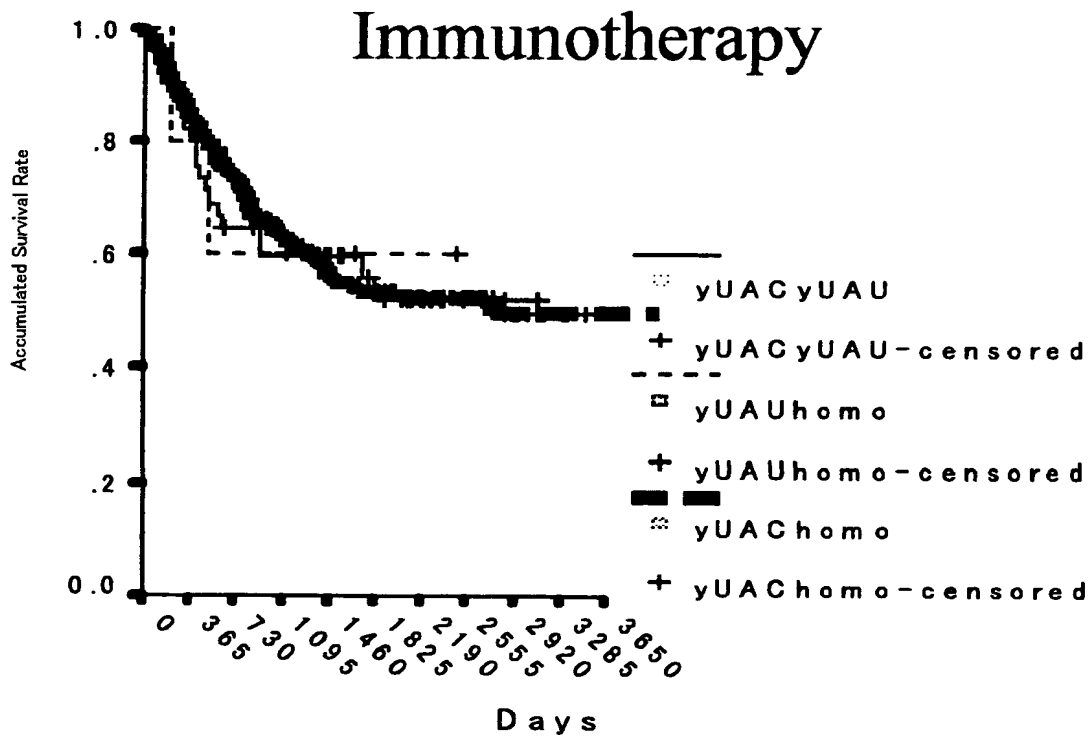


Fig. 25

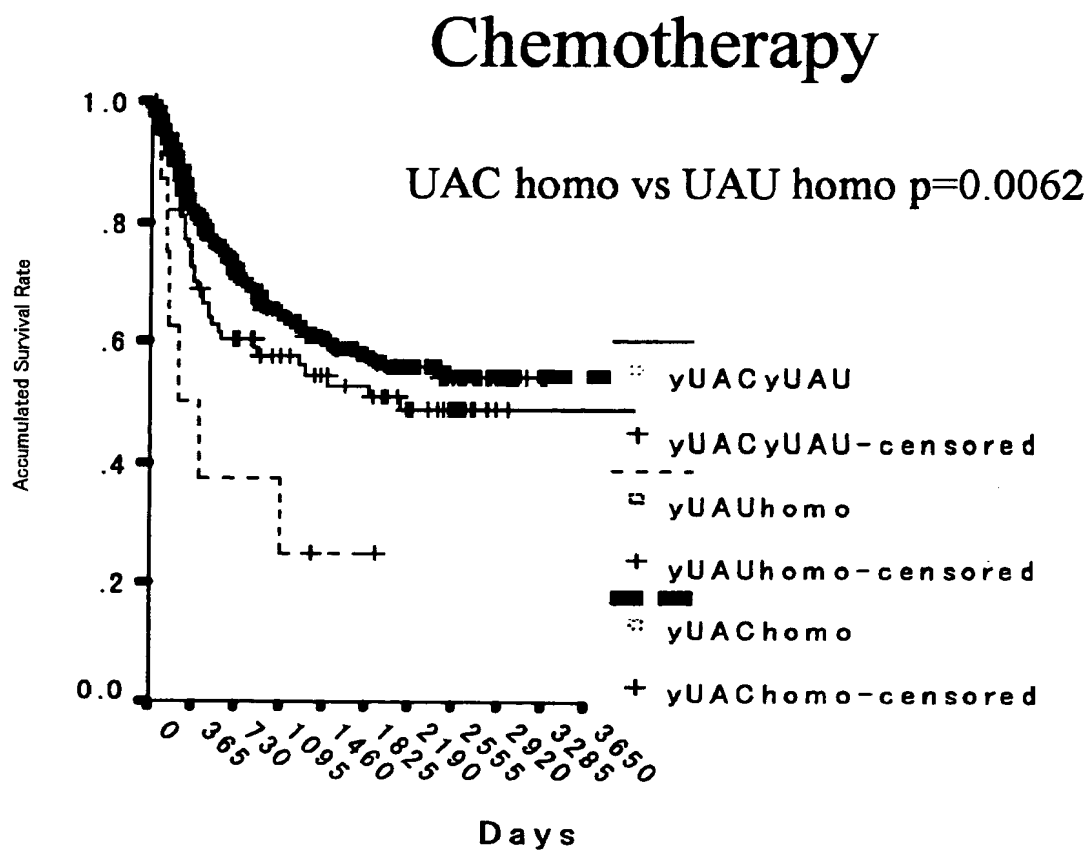


Fig. 26

No Adjuvant Therapy

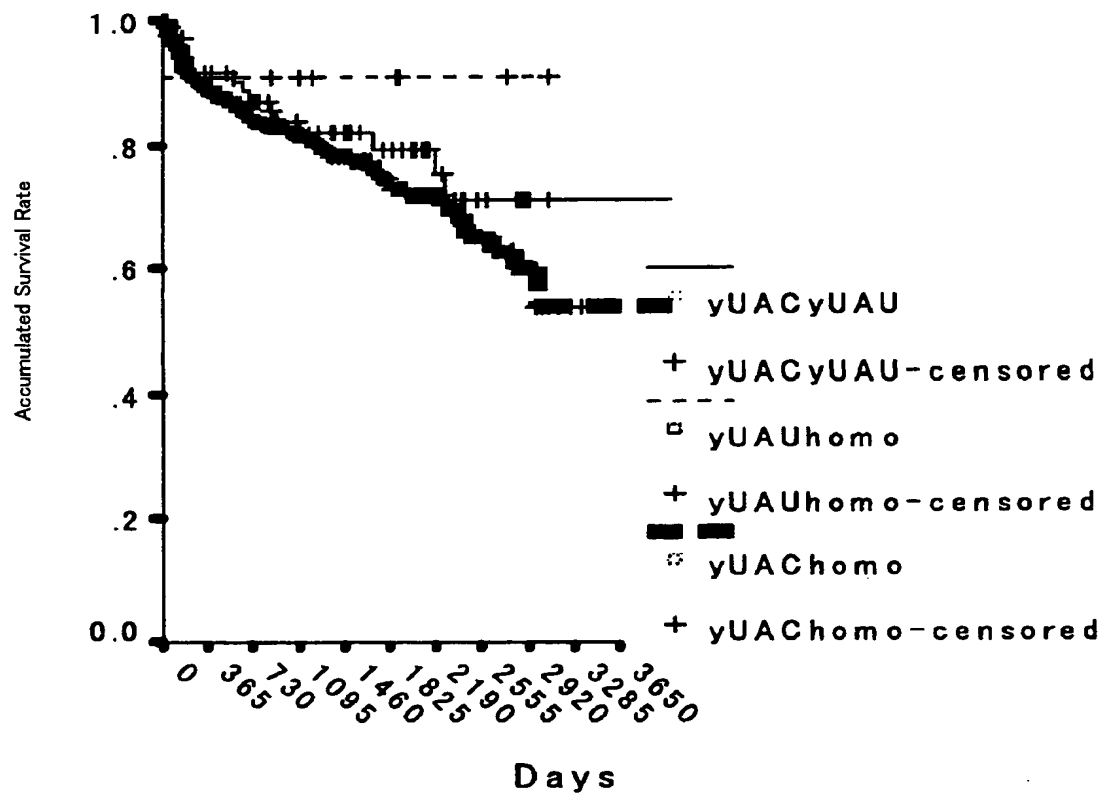


Fig. 27

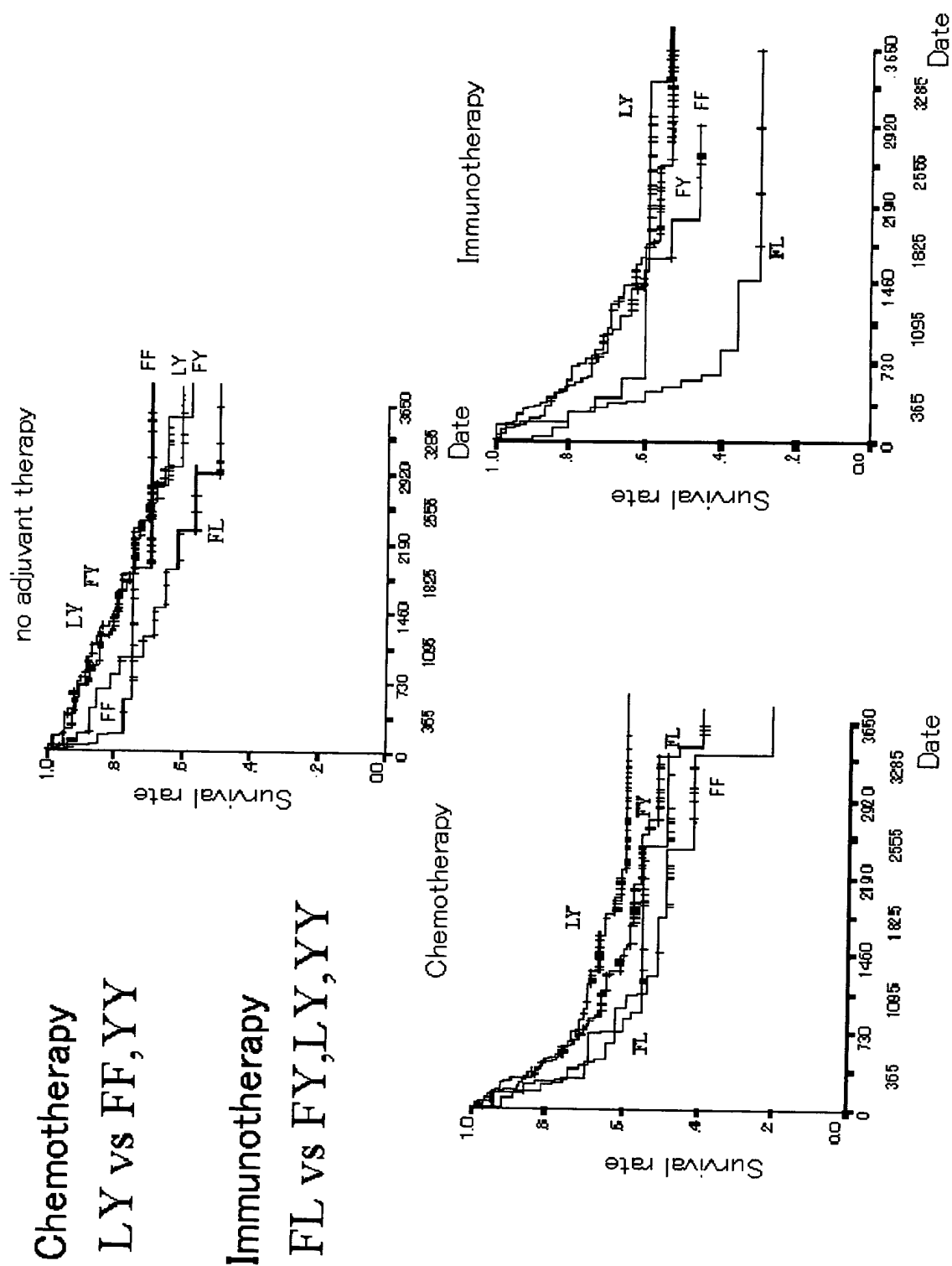


Fig. 28

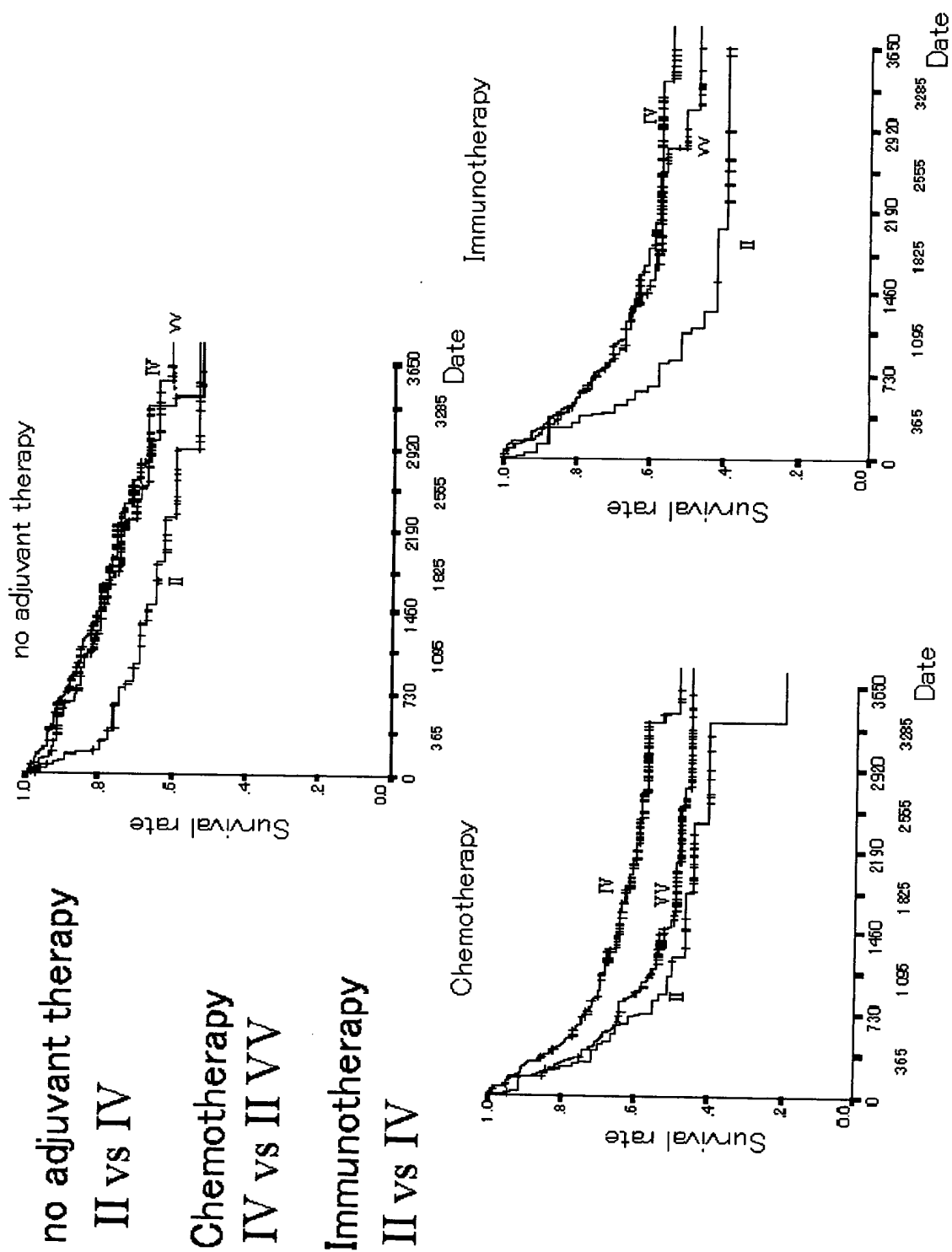


Fig. 29

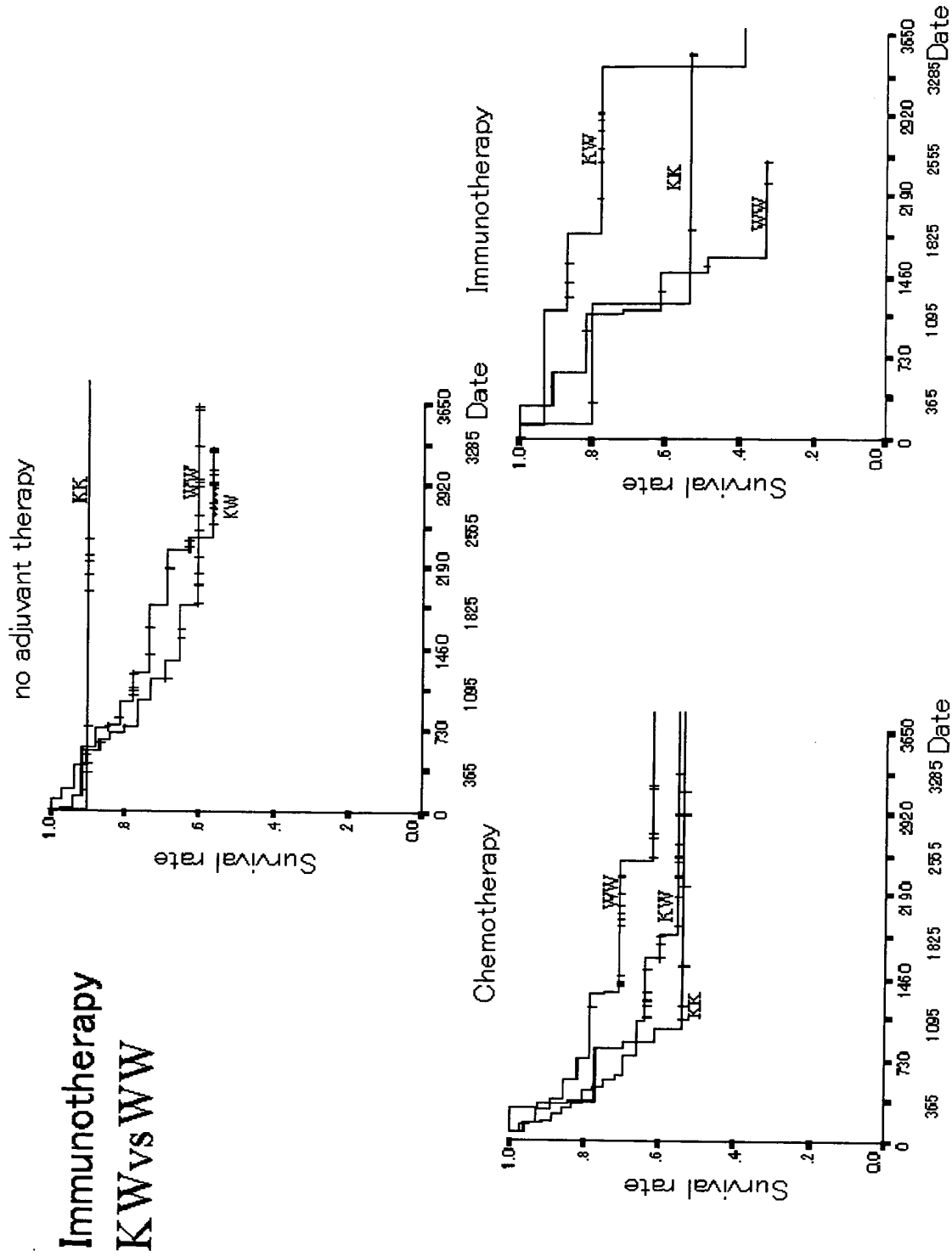


Fig. 30

no adjuvant therapy

LY vs FY

Chemotherapy

FL vs LY NY SS SY,

FS vs LY SS,

NN vs SS

Immunotherapy

SY vs NS

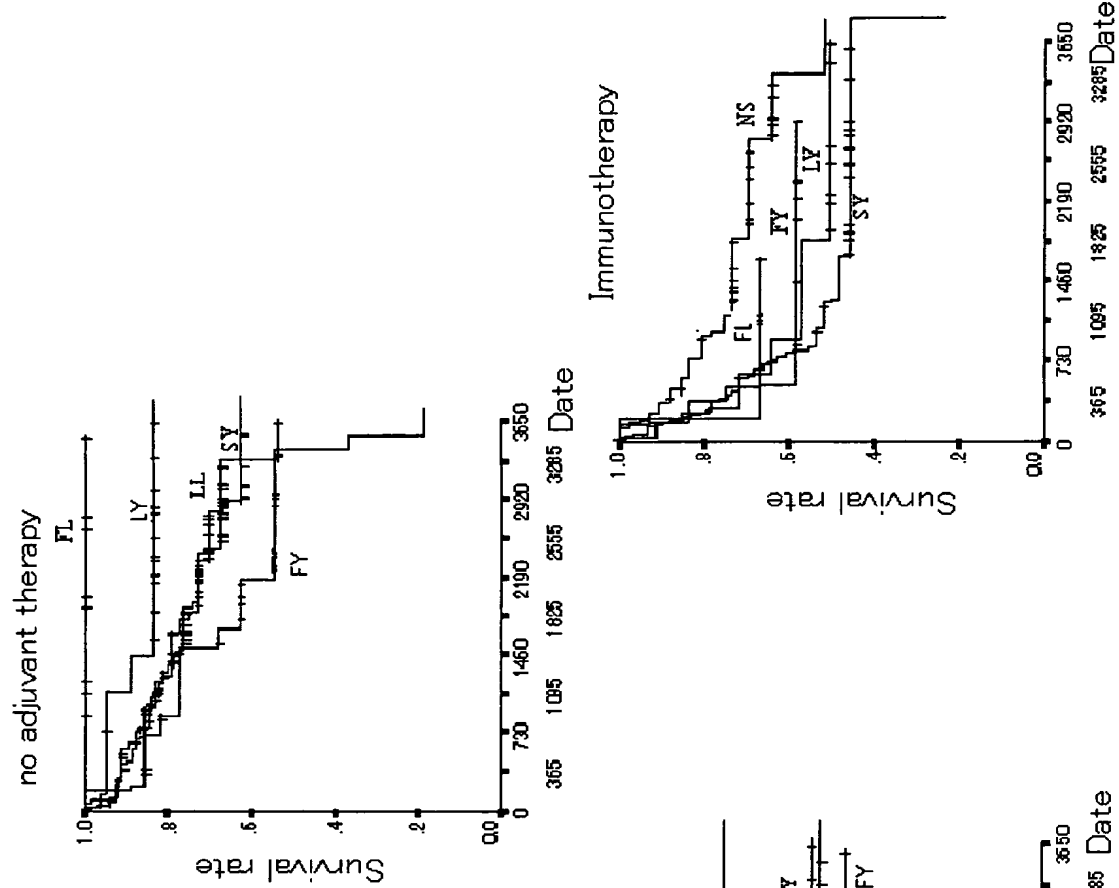


Fig. 31

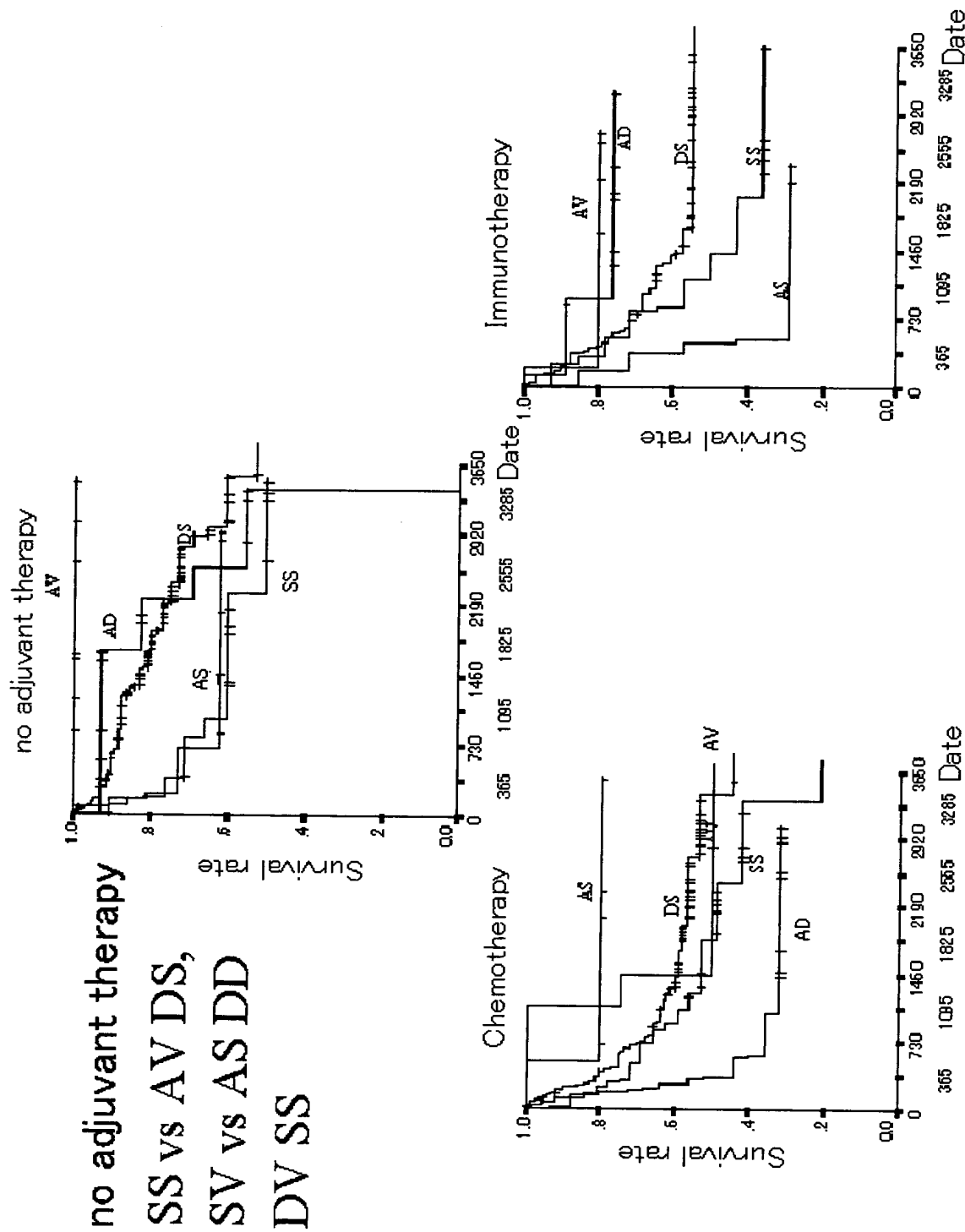


Fig. 32

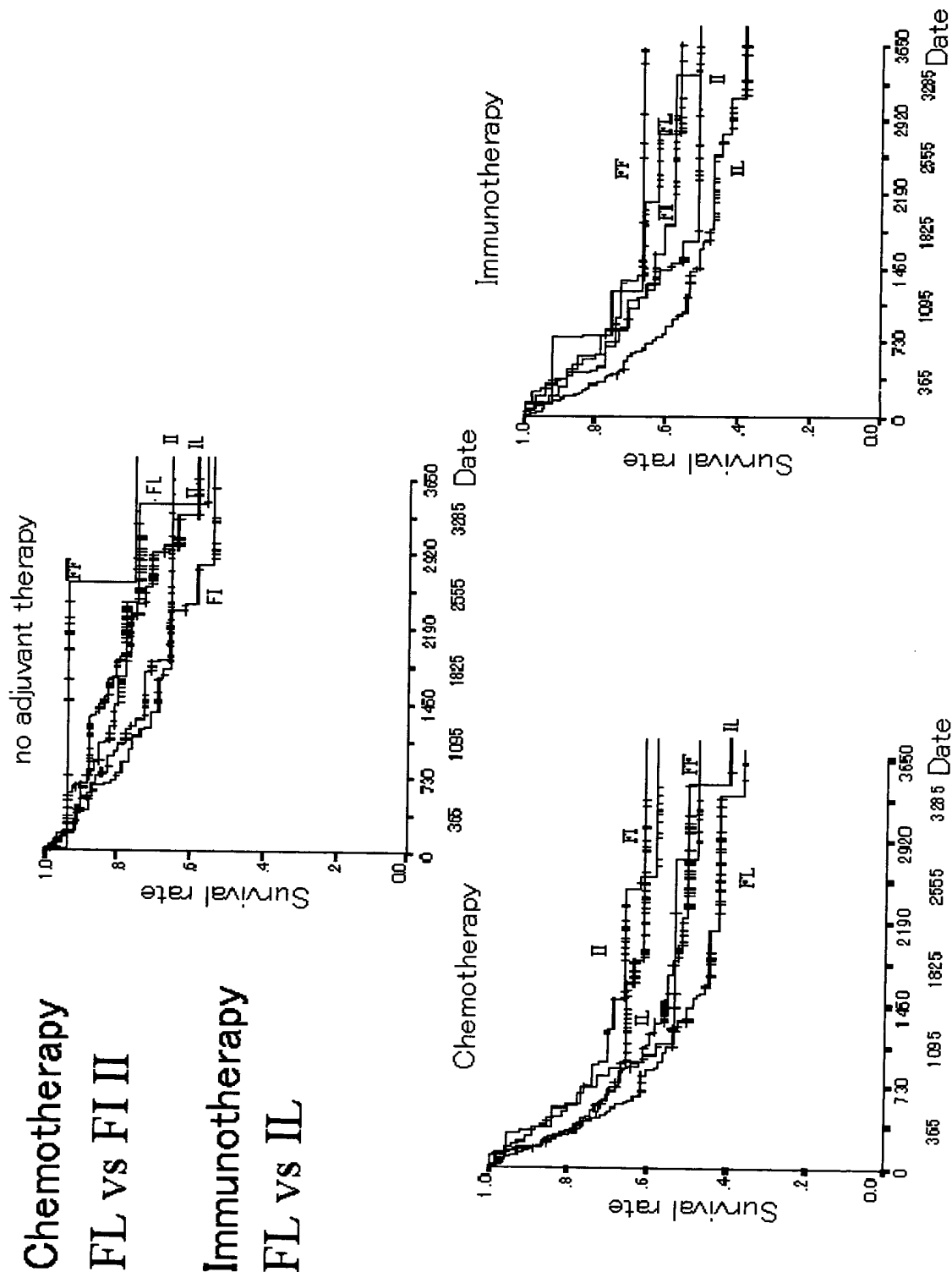


Fig. 33

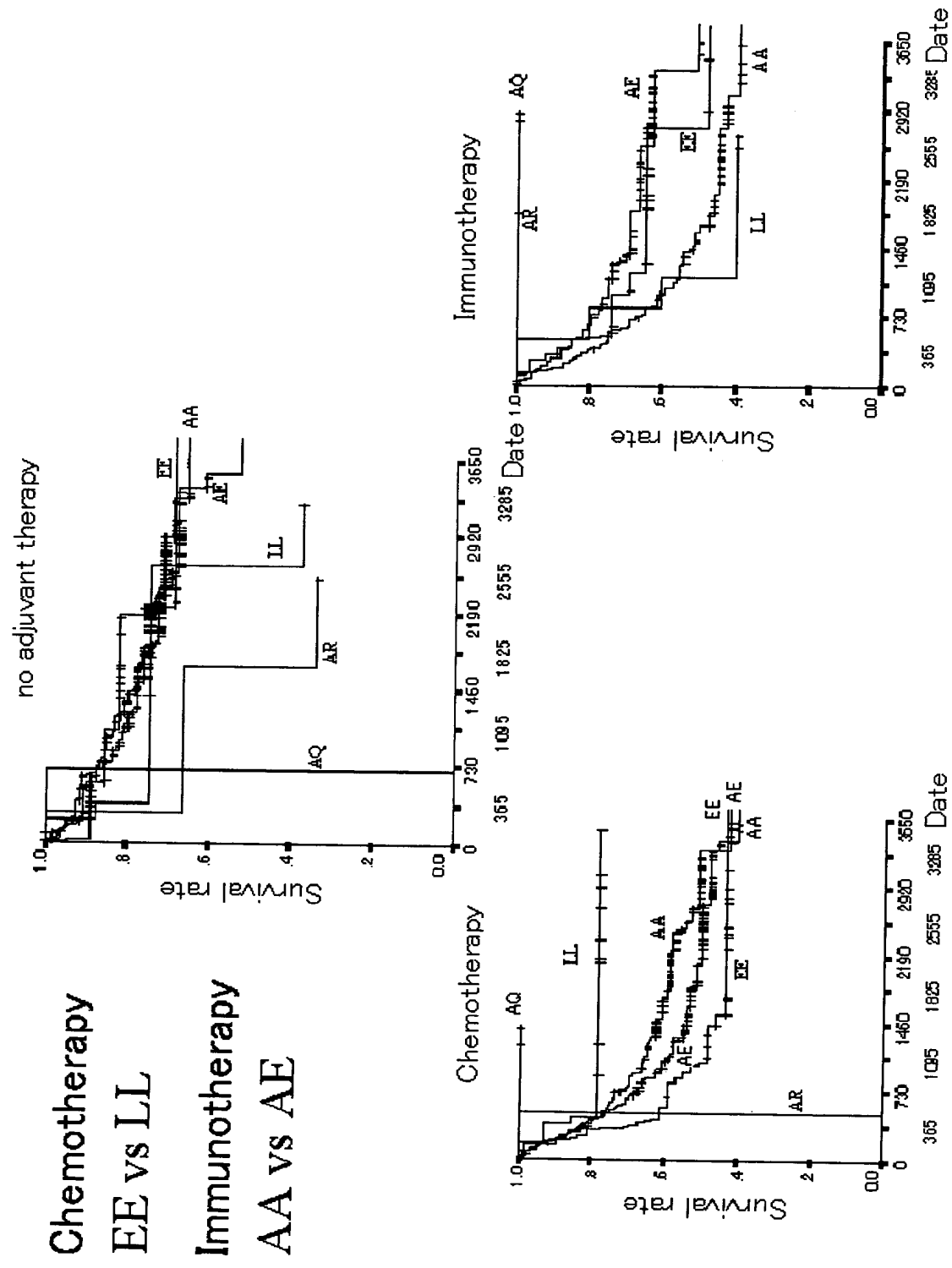
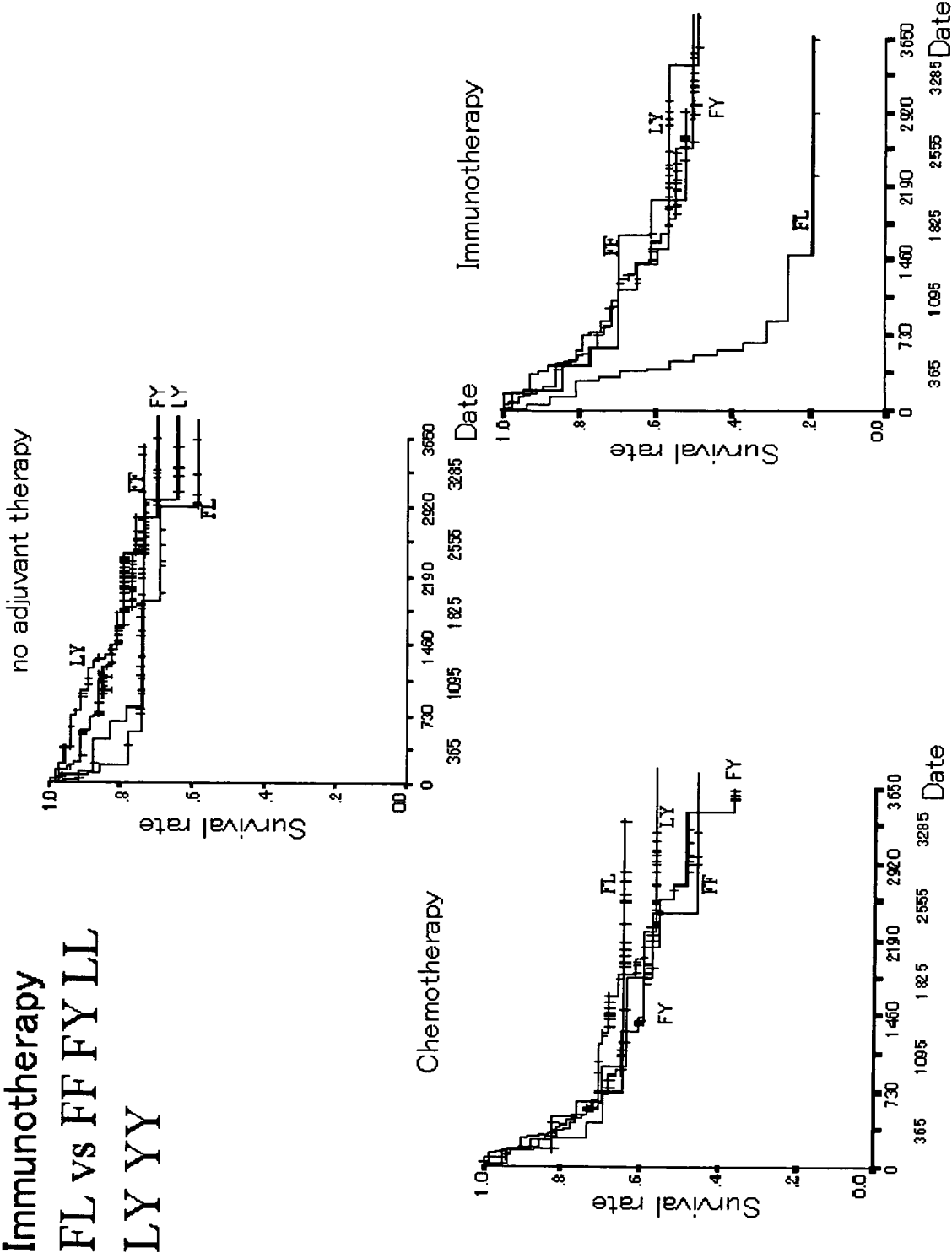


Fig. 34



Immunotherapy
 VV vs AA AD DD
 DV

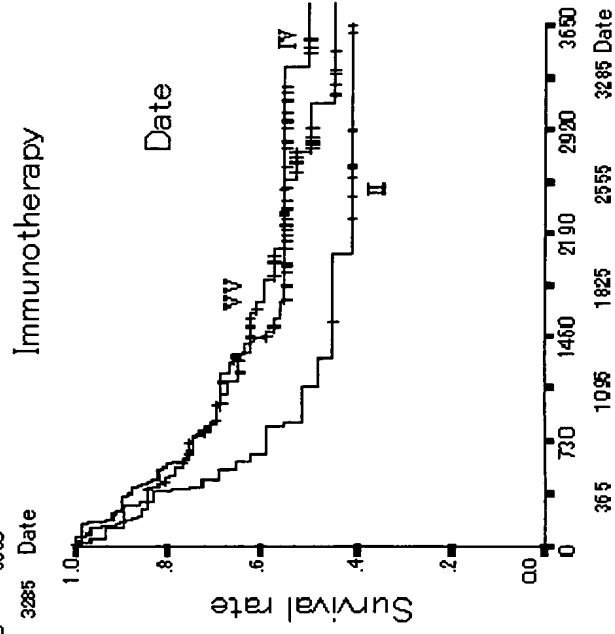
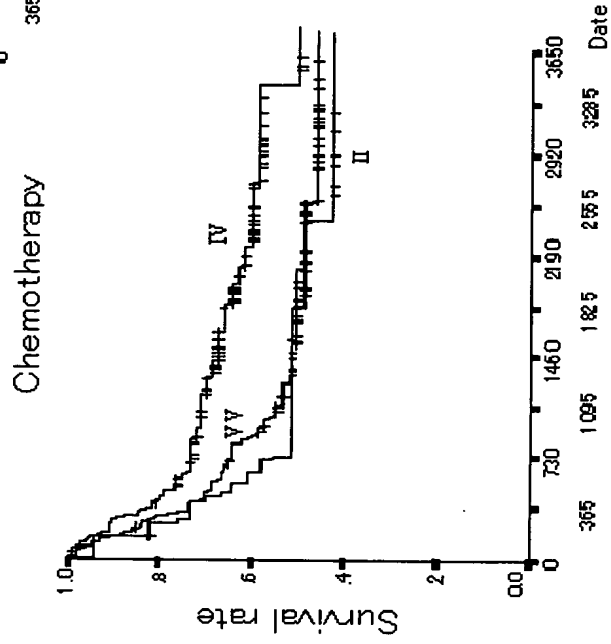
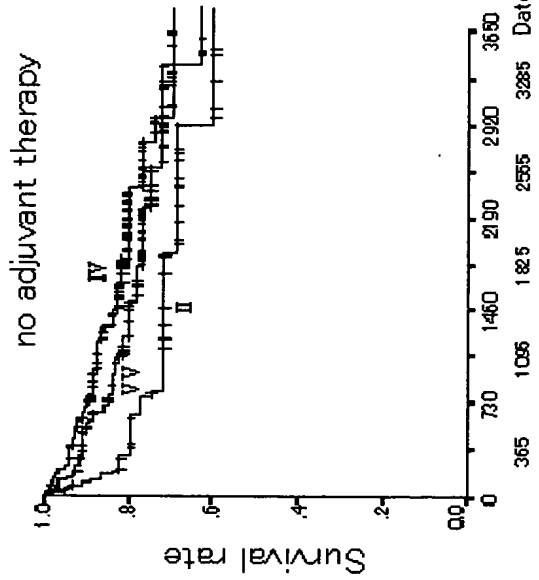


Fig. 35

Fig. 36

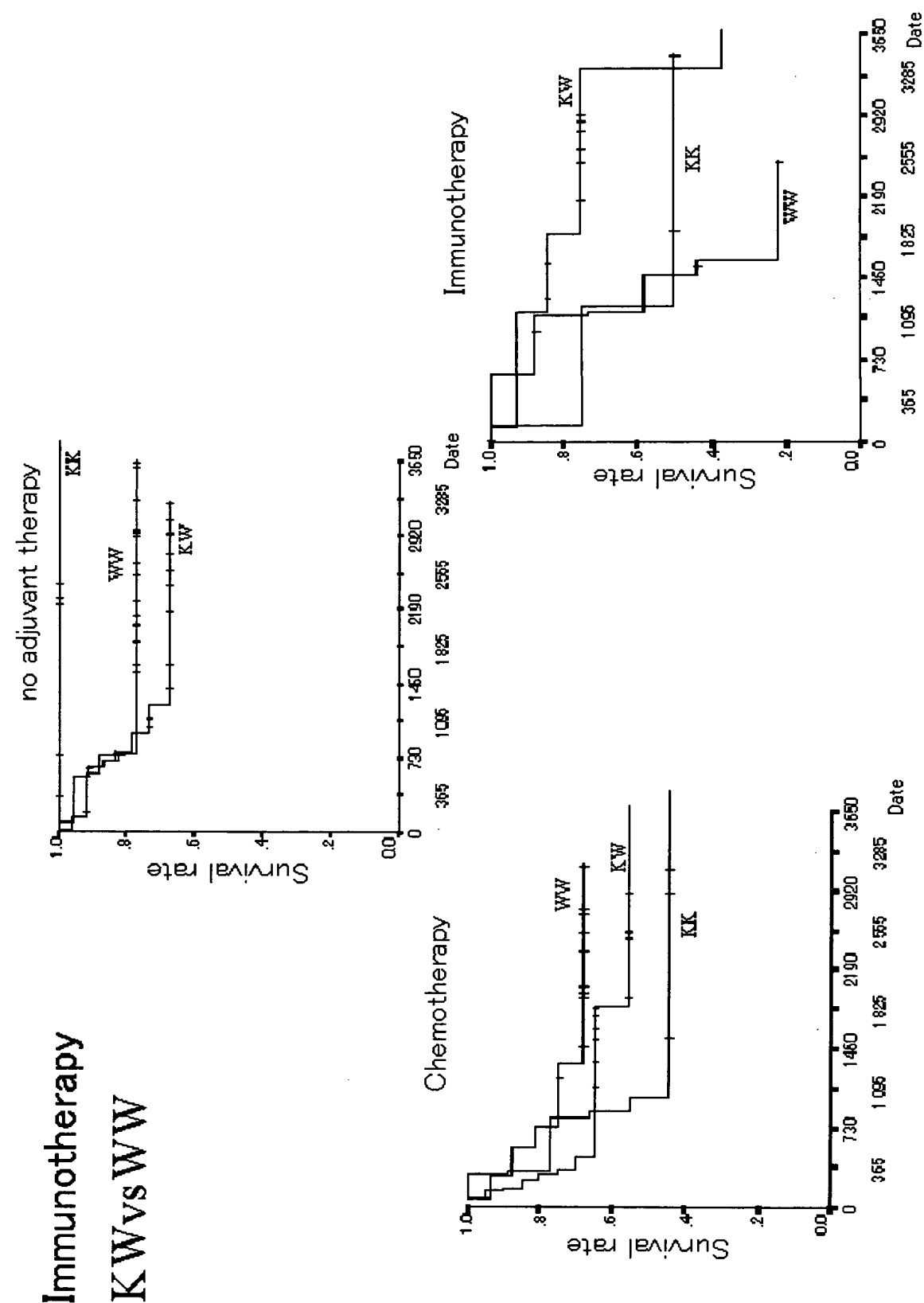


Fig. 37

no adjuvant therapy

LY vs FY

Chemotherapy

FL vs LY NY SS SY,

FS vs LY SS, NN vs SS

Immunotherapy

SY vs NS

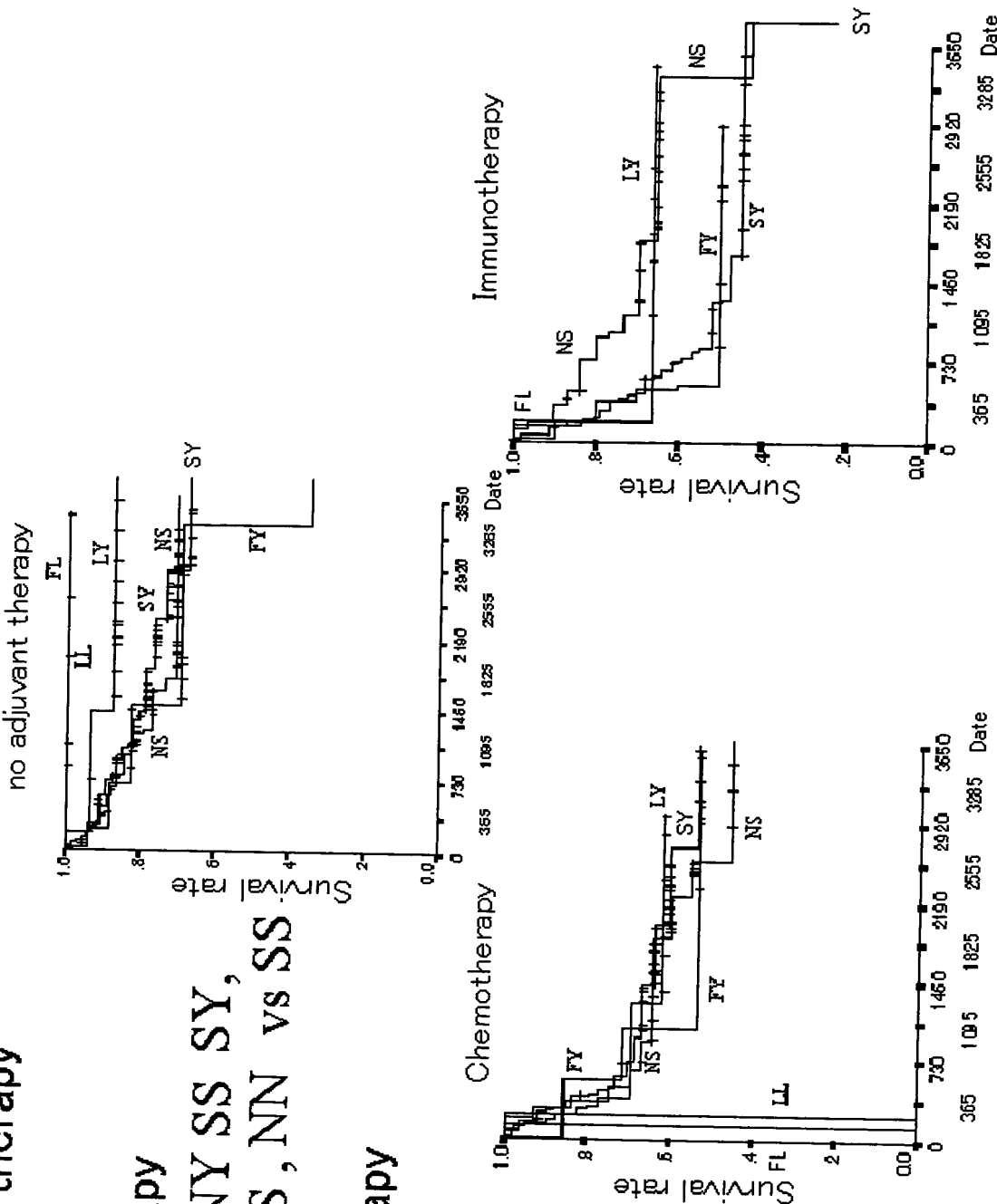


Fig. 38

no adjuvant therapy

SS vs AV DS,

SV vs AS DD

DV SS

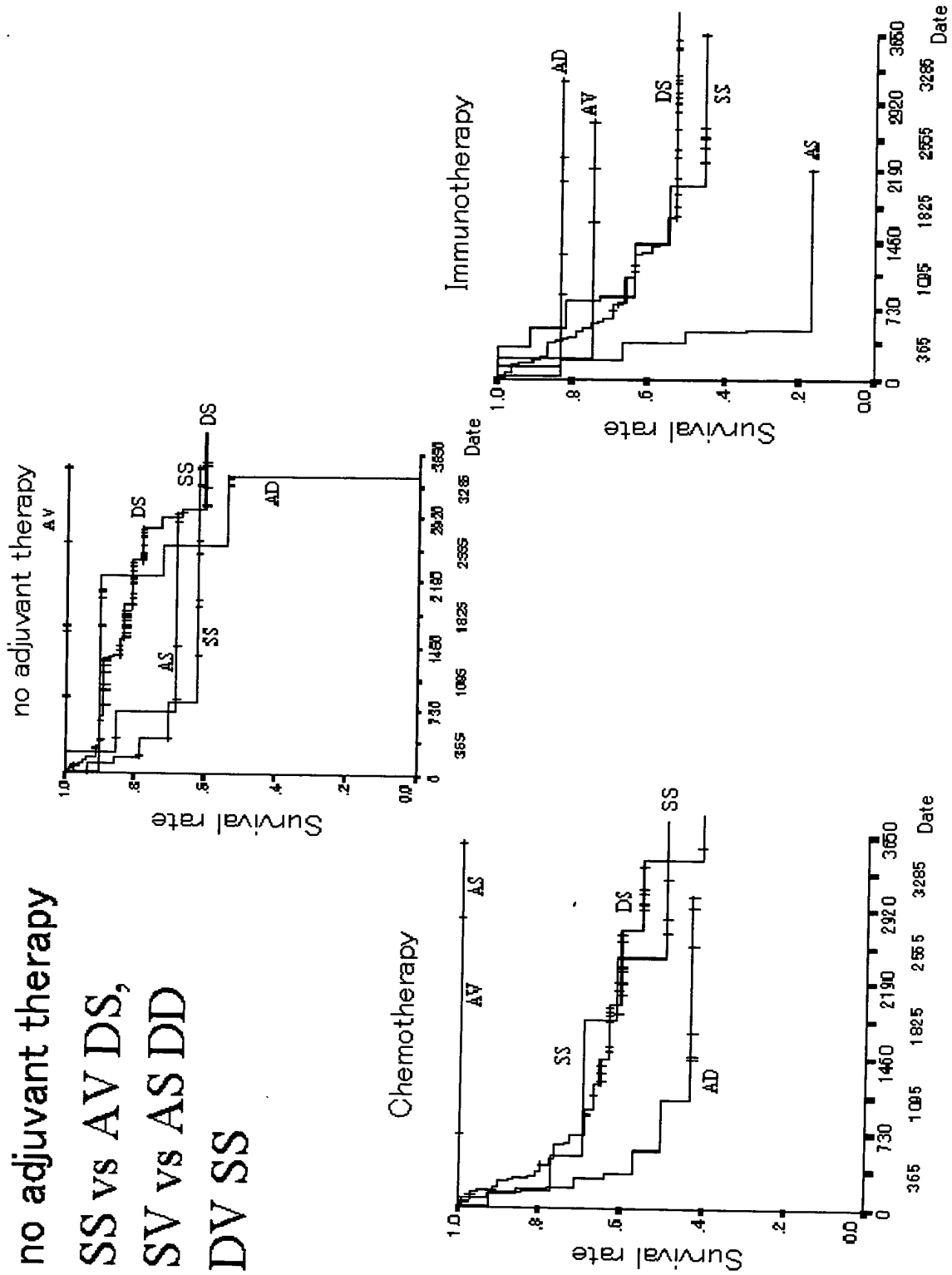


Fig. 39

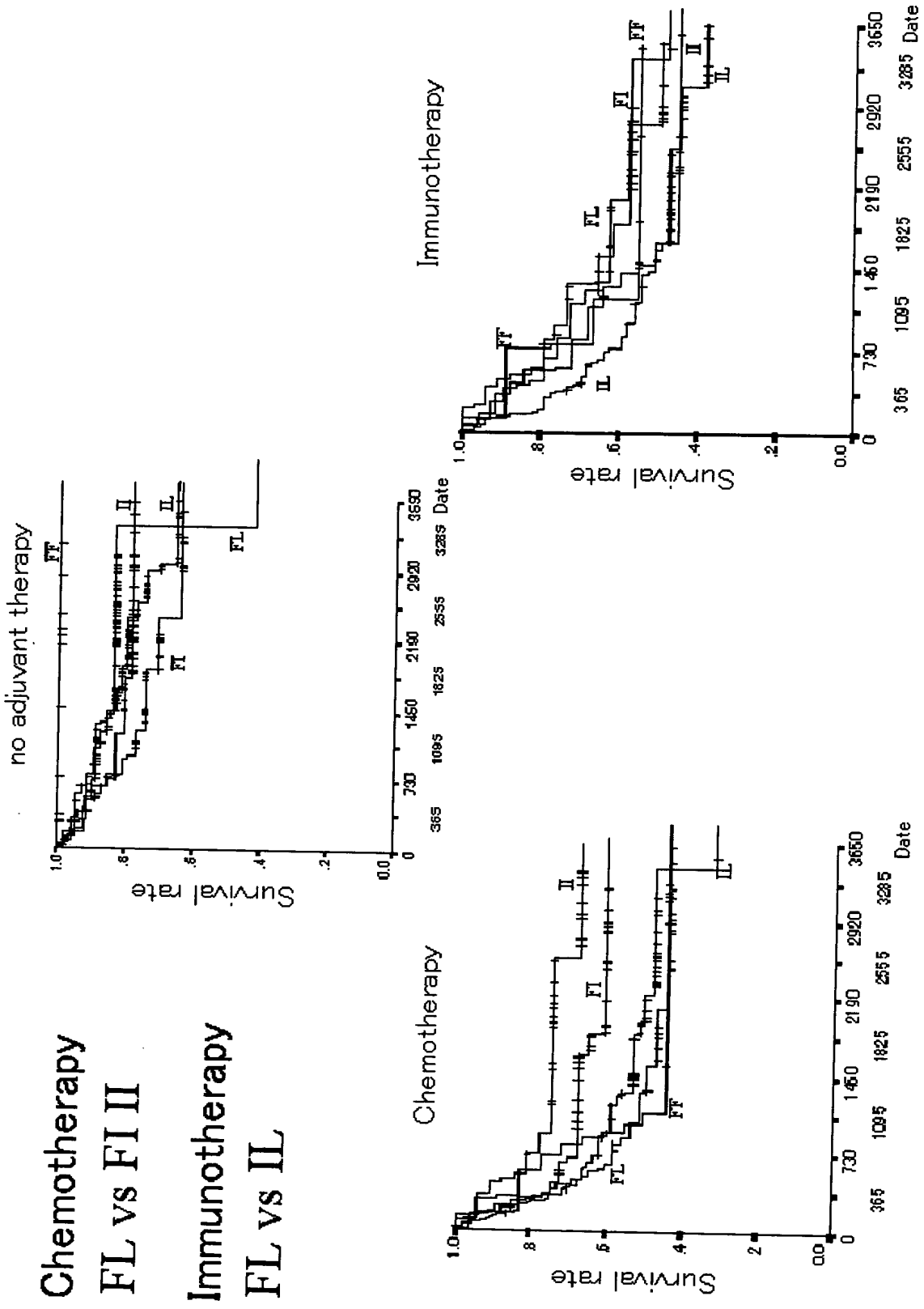


Fig. 40

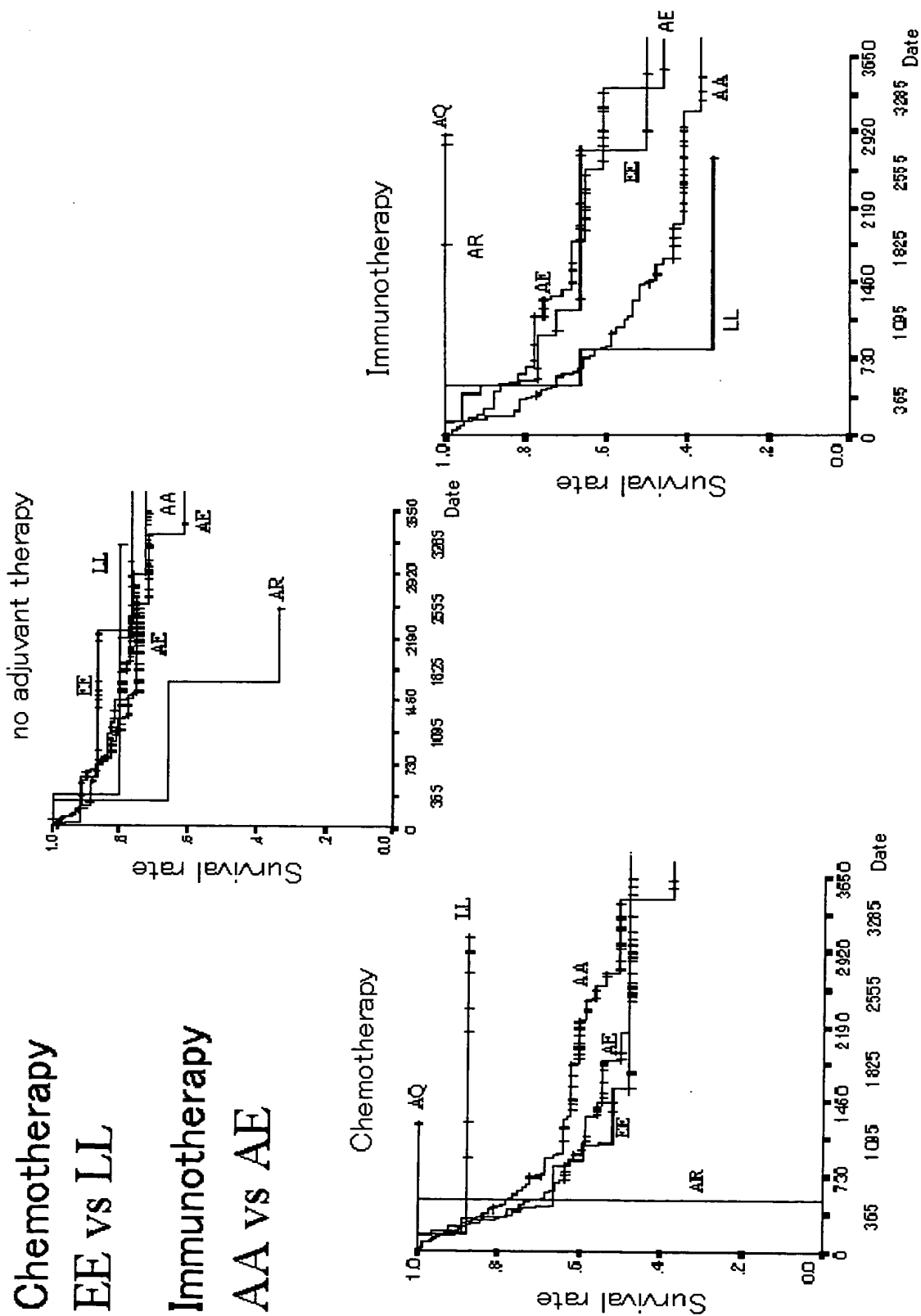


Fig. 41

5-year Survival Comparison

	DR			DQ			DP	
%	APR_25 = RR	0.8333						
			*	AQP_21 = GG	0.8782			
%	ARP_17 = AA	0.8333						
%	ARP_16 = VV	0.8333	*	AQP_6 = TT	0.8782			
%	ARP10 = YY	0.7684	*	AQP_4 = VV	0.8782			
*	ARP11 = DS	0.8394	%@	AQP3 = SS	0.7644			
*	ARP13 = GH	0.8375	%	AQP23 = LR	0.7789			
*	ARP26 = FL	0.7981	%	AQP30 = HH	0.8247			
%	ARP32 = HH	0.8228	%@	AQP37 = YY	0.7661			
			%	AQP53 = LL	0.7965		APP55 = AD	0.8095
@	ARP57 = AV	1	%	AQP56 = LP	0.7847	%	APP65 = IL	0.8618
%	ARP67 = FF	0.9444	%	AQP66 = DE	0.7786	%	APP69 = EK	0.7985
*	ARP67 = IL	0.8106	%*	AQP66 = EE	0.7535			
%	ARP73 = AA	0.7554	%	AQP67 = IV	0.7786			
%	ARP78 = VV	0.9	%	AQP74 = ES	0.799			
%	ARP86 = VV	0.8618	%@	AQP75 = LV	0.7963			
%	ARP96 = HY	0.9	%	AQP84 = QQ	0.7965	%	APP178 = LM	0.8261
*	ARP96 = HY	0.79	%	AQP85 = LL	0.7965			
%	ARP98 = EK	0.7846	*	AQP87 = FY	0.7922			
%	ARP104 = AA	0.8355	%	AQP89 = TT	0.7965			
%@	ARP133 = RR	0.7774	%	AQP90 = TT	0.7965			
%@	ARP142 = VV	0.7774	%	AQP125 = GS	0.8179			
%	ARP189 = RR	0.7328	%	AQP140 = TT	0.7957			
			%	AQP182 = NN	0.7957			
			%	AQP185 = II	0.8136			
			%@	AQP197 = SS	0.7644			
			%	AQP220 = HH	0.7965			
			%	AQP221 = HH	0.7965			

No marked High survival rate
 @ High survival rate and significant difference (+)
 * Low survival rate but significant difference (+)
 % Common in all cancer

Fig. 42

	DR			DQ			DP	
%	APR_25 = RR	0.8571						
%	ARP_17 = AA	0.8571						
%	ARP_16 = VV	0.8571						
%	APR9 = WW	0.7109	%	AQP3 = PS	0.6237			
%	APR16 = YY	0.6563	%@	AQP9 = LY	0.6501			
*	ARP37 = LY	0.7202	%	AQP13 = AA	0.6568			
@	ARP57 = AV	1	%@	AQP37 = DY	0.628			
*	APR60 = YY	0.5806	%	AQP45 = EG	0.6029			
*	APR67 = FI	0.6366	%	AQP56 = PP	0.5597	%	APP57 = DE	0.6016
%	APR70 = DD	0.6583	%@	AQP66 = DE	0.6298			
%	APR74 = LL	0.7857	%@	AQP67 = IV	0.6298	%	APP84 = DG	0.5565
%	APR86 = GV	0.5752	%	AQP126 = HQ	0.6046	%	APP85 = EG	0.5565
%	APR120 = NN	0.8	%	AQP130 = RR	0.5593	%	APP87 = MV	0.5565
%	APR140 = TT	0.6635						
%	APR149 = HH	0.6717	%	AQP167 = HH	0.6568			
			%	AQP185 = TT	0.6213			
			%	AQP197 = NS	0.6237			

No marked High survival rate
 @ High survival rate and significant difference (+)
 * Low survival rate but significant difference (+)
 % Common in all cancer

Fig. 43

	DR			DQ			DP	
%	ARP_25 = RR	0.7143	%	AQP_21 = GG	0.6208			
%@	ARP_17 = AA	0.7143	%	AQP_6 = TT	0.6208			
			%@	AQP_5 = PP	0.6208			
%	ARR_1 = AA	0.5833	%	AQP_4 = VV	0.6208			
%	ARP4 = QR	0.6692						
@	ARP9 = KW	0.8667	*	AQP9 = YY	0.6315			
%@	ARP11 = DP	0.8462	%	AQP13 = GG	0.6271			
*	ARP13 = FS	0.7826	%	AQP14 = LM	0.6486			
*	ARP26 = FL	0.5386	%	AQP23 = RR	0.5781			
*	ARP31 = FF	0.5618	%@	AQP30 = HY	0.6919	%	APP36 = AV	0.7225
*	ARP31 = FI	0.5981	%@	AQP57 = AA	1			
@	ARP33 = HH	0.8125	@	AQP66 = EE	0.6043			
@	ARP37 = NS	0.7281	@	AQP67 = VV	0.6043			
%	ARP38 = VV	0.5842	%	AQP71 = AT	0.6808	%	APP76 = IM	0.667
@	ARP40 = FF	0.5769	%	AQP74 = ES	0.5884			
@	ARP57 = AAV	1	%	AQP77 = RT	0.6548			
%	ARP60 = HS	0.8	%	AQP84 = QQ	0.6117			
*	ARP67 = FL	0.6649	@	AQP86 = EG	0.786			
@	ARP71 = ER	0.7432	@	AQP87 = LY	0.7151			
@	ARP74 = AE	0.6849	%	AQP116 = IV	0.6486			
%	ARP78 = VY	0.6635						
%	ARP85 = VV	0.581	%@	AQP130 = QR	0.7567			
%	ARP86 = GG	0.5924						
%	ARP98 = EK	0.6531						
%	ARP104 = AS	0.6531	%	AQP167 = RR	0.6271			
			%	AQP224 = QR	0.6486			
%	ARP120 = SS	0.597						
%	ARP133 = RR	0.592						
%	APR142 = VV	0.592		No mark High survival rate @ High survival rate and significant difference (+) * Low survival rate but significant difference (+) % Common in all cancer				
%	APR149 = HH	0.619						
@	ARP166 = RR	0.5791						
%@	ARP231 = QQ	0.5848						

Stomach and Other cancers are at the same survival rate.

No.													Chemotherapy	Immunotherapy	
Stomach Cancer	DR_25	K													
Stomach Cancer	DR_25	R													
Stomach Cancer	DR_24	F													
Stomach Cancer	DR_24	L													
Stomach Cancer	DR_17	A													
Stomach Cancer	DR_17	T													
Stomach Cancer	DR_16	A													
Stomach Cancer	DR_16	V													
Stomach Cancer	DR_1	S													
Stomach Cancer	DR_1	A													
Stomach Cancer	DR4	Q													
Stomach Cancer	DR4	R													
Stomach Cancer	DR9	K	DR11	D	DR26	Y	DR28	H	DR30	G					
Stomach Cancer	DR9	E													
Stomach Cancer	DR10	Q													
Stomach Cancer	DR10	Y													
Stomach Cancer	DR10	E	DR31	V	DR38	A	DR40	Y	(DR166)	Q					
Stomach Cancer	DR11	S	DR12	K									(-)>hetero	(-)>hetero	
Stomach Cancer	DR11	G	DR13	Y	DR14	E	DR25	Q	DR30	L					
Stomach Cancer	DR11	V											Same	(-),homo>hetero	V homo>((-)>hetero)
Stomach Cancer	DR11	P	DR13	R											
Stomach Cancer	DR13	F	DR31	F											
Stomach Cancer	DR13	H	DR31	I											
Stomach Cancer	DR13	S											Same	(-),homo>hetero	V homo>((-)>hetero)
Stomach Cancer	DR26	L													
Stomach Cancer	DR26	F											Same	Hetero,((-)>homo	Hetero (-)>Homo
Stomach Cancer	DR28	H	DR30	G											
Stomach Cancer	DR28	E											Homo>hetero,(-)	Hetero,((-)>homo	Hetero (-)>E homo
Stomach Cancer	DR28	D													

[illegible]

Fig. 48

Other cancers	DR10	Y	No.	Chemotherapy	Immunotherapy
Other cancers	DR11	S			
Other cancers	DR12	K			
Other cancers	DR12	T			
Other cancers	DR11	G			
Other cancers	DR13	Y			
Other cancers	DR14	E			
Other cancers	DR14	K			
Other cancers	DR14	R			
Other cancers	DR11	P	hetero (-) homo	Same	homo>hetero, (-)
Other cancers	DR13	S	homo, (-)>hetero	hetero (-)>homo	hetero, (-)>homo
Other cancers	DR26	F	Same	(-) (hetero)>homo	homo, hetero>(-)
Other cancers	DR28	H			
Other cancers	DR30	G			
Other cancers	DR28	D	Same	(-) (hetero)>homo	homo, (-)>hetero
Other cancers	DR30	H			
Other cancers	DR37	L			
Other cancers	DR38	L			
Other cancers	DR38	A			
Other cancers	DR38	V			
Other cancers	DR31	V			
Other cancers	DR38	A			
Other cancers	DR40	F			
Other cancers	DR40	Y			
Other cancers	DR32	H	homo, (-)>hetero	(-) hetero>homo	(-) (hetero)>homo
Other cancers	DR32	Y	homo, (-)>hetero	(-) hetero>homo	(-) (hetero)>homo
Other cancers	DR33	H			
Other cancers	DR33	N			
Other cancers	DR37	F	Same	(-) hetero>homo	hetero>(-)
Other cancers	DR37	S	(-) hetero>homo	homo>hetero, (-)	hetero, ((-))>homo
Other cancers	DR38	L			
Other cancers	DR38	V			
Other cancers	DR47	F			
Other cancers	DR47	Y			
Other cancers	DR57	A			
Other cancers	DR57	S			
Other cancers	DR58	A	Same	(-) hetero>homo	hetero>(-)
Other cancers	DR58	E	Same	hetero, ((-))>homo	(-) (hetero)>homo
Other cancers	DR60	H			
Other cancers	DR71	A	Same	(-) hetero>homo	hetero>(-)
Other cancers	DR73	A	(-) hetero>homo	hetero, ((-))>homo	Same
Other cancers	DR73	G			
Other cancers	DR74	R			
Other cancers	DR74	N			
Other cancers	DR74	L			
Other cancers	DR78	V	hetero, (-)>homo	homo, (-)>hetero	homo>hetero, (-)
Other cancers	DR78	Y			
Other cancers	DR85	A			

Fig. 49

Other cancers	DR85	V	No.	Chemotherapy	Immunotherapy
Other cancers	DR86	G	Same	hetero, homo>(-)	homo, hetero>(-)
Other cancers	DR86	V	Same	hetero, homo>(-)	homo, hetero>(-)
Other cancers	DR96	Q	(-) hetero>homo	Same	hetero, (-)>homo
Other cancers	DR98	E	DR10 A	Same	(-) hetero>homo
Other cancers	DR98	K	DR10 S	Same	(-) hetero>homo
Other cancers	DR120	N	hetero, (homo)>(-)	Same	(-) hetero>homo
Other cancers	DR120	S	hetero, (homo)>(-)		
Other cancers	DR133	L	(-) hetero>homo	Same	Same
Other cancers	DR133	R	DR14 V	Same	Same
Other cancers	DR149	Q	(-) hetero>homo	Same	Same
Other cancers	DR149	H			
Other cancers	DR166	Q			
Other cancers	DR166	R			
Other cancers	DR180	L			
Other cancers	DR180	V			
Other cancers	DR189	R			
Other cancers	DR189	S			
Other cancers	DR231	P			
Other cancers	DR231	Q			
Other cancers	DR233	R			
Other cancers	DR233	T	Same	hetero, (-)>homo	(-) hetero>homo

[illegible]

Fig. 51

[illegible]

Fig. 52

		Diversity	Equivalence	Prognosis Total (+) Vs (-)	Prognosis Total (homo)	Prognosis Total	Prognosis Total (+) vs (-)	Prognosis Total (homo)	Prognosis Stomach	Prognosis Total (+) vs (-)	Prognosis Total (homo)
	DR	Diversity		Total	Total		Stomach	Stomach		Other cancers	Other cancer
5	arp_25	KR	K=R		K(-)>hetero, Rhomo>hetero	RR78.8			RR71.4		
6	arp_24	FL	F=L			FI66.7			LL60.9		
13	arp_17	AT	A=T		Ahomo>hetero, T(-) >hetero	AA76.6	F(-)>(+)		AA67.8		
14	arp_16	AV	A=V		A(-)>hetero, Vhomo>hetero	VV78.8			VV71.4		
29	arp_1	AS	A=S			SS83.36			SS100	A(+)>(-), S(-) >(+)	A, Shomohete (+)
33	arp4	QR	Q=R			QR68.3			RR68.1		
38	arp9	EKW	9K=11D=26Y=28H=30G			KW74.2			KW75.8		
39	arp10	EQY	10E=31V=38A=40Y= (166Q)=(166R)			EY83.3			EY75		
40	arp11	DGLPSV	11G=13Y=14E=14=K25 Q=25R=30L, 11S=12K=12T, 11P=13R		V(-)>hetero	GV100, LL1000		Vhetero>(-)	LL100		Phetero>hc
41	arp12	KT				KK66.5			TT70.7		
42	arp13	FGHRSY	13F=31F=31I			HY100, FR71.6			SY100, GR75.4	F(+)>(-)	Fhetero>(-) Rhetero>hc , Shetero, (-) >homo
43	arp14	EK	E=K			EE66.2			EK80		
45	arp16	HQY				HQ71.50		Chetero> homo	HQ830		
	arp25	QR	Q=R								
55	arp26	FLY				LY70.2		Lhetero> homo	LY80.3		Fhetero>hc
57	arp28	DEH	28H=30G			DE69.2			DE69.4		
59	arp30	CDHLRY	30H=37L=38L=85A=85V			CC1000			CC1000		
60	arp31	FIV	31V=38A=40F=40Y, 31 (F=I)			FV77.8			FV76.2	I(+)>(-)	Fhetero>hc ,Ihetero>(-)

Fig. 53

		Diversity	Equivalence	Prognosis Total (+) vs (-)	Prognosis Total (homo)	Prognosis Total (+) vs (-)	Prognosis Total (homo)	Prognosis Stomach	Prognosis Total (+) vs (-)	Prognosis
	DR	Diversity		Total	Total	Stomach	Stomach		Other cancers	Other canci
61	arp32	HY	H=Y			HY66.9		YY68		
62	arp33	HN	H=N			NN66.7		HH71.4		
66	arp37	FLNSY	F=S			LL800		FS73.4		F(-), hetero>homo
67	arp38	ALV				LL800		AV78.8		
69	arp40	FY	F=Y			FY73.1		FY71.6		
76	arp47	FY	F=Y			FY67.4		YY68.9		
86	arp57	ADSV			Shetero, (-)>homo	AV73.70		AD72.5, SV72.5		Shetero (-)> homo
87	arp58	AE	A=E			AE67		AE71.1		
89	arp60	HAY				HS73.7		HY68.4		
96	arp67	FIL				FI68.5		FI72.2		
99	arp70	DQR				DD69.4		DD72.7		
100	arp71	AEKR			K(-)>hetero	AR63.5, ER67.2, AE72.6	K(-)>hetero	EK750		A Ehetero> homo
	arp73	AG	73A=73G=74R=74N= 77N=77T			AA66.3		AA68.1		
103	arp74	AELQR	R=N			LR80		AQ100.0		
106	arp77	NT	N=T			TT66.4		TT68.2		
107	arp78	VY	V=Y			VY67.1		VY68.6		

Fig. 54

		Diversity	Equivalence	Prognosis Total (+) Vs (-)	Prognosis Total (homo)	Prognosis Total	Prognosis Total (+) vs (-)	Prognosis Total (homo)	Prognosis Stomach	Prognosis Total (+) vs (-)	Prognosis Total (homo)
DR	Diversity			Total	Total		Stomach	Stomach		Other cancers	Other caps
114 arp85	AV		A=V			AA80			VV68.1		
115 arp86	GV		G=V			GG68.5			VV69.4		
125 arp96	EHQY					EE100			EE100		
127 arp98	EK		98E=98K=104A=142V			EK68.5			EK72.1		Q(+), hetero>homo
133 arp104	AS		A=S			AS70.5			AS72.1		
149 arp120	NS		S=N			NN77.9			NN72.9		
162 arp133	LR		133L=133R=142M=142V			RR67.5			LL69.7		
169 arp140	AT					TT71.5			TT74.1		
171 arp142	MV		M=V			VV67.5			MM69.7		
178 arp149	HQY		H=Q			HH68.1			HH70.8		
arp164	FV										
195 arp166	QR		Q=R			RR67			QR68.6, RR68.6		
209 arp180	LV		L=V			LL75.1			LL70.1		
210 arp181	MT					TT67.3			TT69		
218 arp189	RS		R=S			SS100			SS100		
260 arp231	PQ		P=Q			QQ66.7			QQ67.9		
262 arp233	RT		R=T			TT67.4			RR78.2		
	All survived					DR11GLGV LL(5)			DR30CLC C(4)		

Fig. 55

			Prognosis	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect
	Diversit y	Equivalence	Other cancers	Total (+) vs (-)	Total (homo)	All cases	Total (+) vs (-)	Treatment Effect
DR	Diversit y			Total	Total			Total (homo)
arp_25	KR	K=R	RR100				Stomach	Stomach
arp_24	FL	F=L	FL100					
arp_17	AT	A=T	AA100					
arp16	AV	A=V	VV100			Immunotherapy AA 71.4		
arp1	AS	A=S	AA90.90					
arp4	QR	Q=R	QQ69.3					
arp9	EKW	9K=11D=26Y=28 H=30G	KW71.2			Immunotherapy KW (86.7)		Immunotherapy E (-), (homo)>hetero
arp10	EQY	10E=31V=38A=4 0Y=(166Q)=(-166 R)	EY100	Immunotherapy E(-)>(+) hetero	Immunotherapy >hetero		Immunotherap y E(-)>(+) hetero	Immunotherapy E (-), (homo)>hetero
arp11	DGLPS V	11G=13V=14E=1 4=K25Q=25R=3 0L, 11S=12K=12T, 11P=13R	LL1000		Immunotherapy Vhomo, (-)>hetero	no adjuvant therapy DS(83.4)DV(79.6) Immunotherapy DP (84.6)		Immunotherapy Vhomo, (-)>hetero
arp12	KT		KK64.2					
arp13	FGHRS Y	13F=13F=31I	FR74.20	Immunotherapy Shetero> (-)homo		no adjuvant therapy GH(89.9), Immunotherapy FS(81.9)		Immunotherapy Hhomo, (-)>hetero
arp14	EK	E=K	EE63.5					
arp16	HQY		QY100					
arp25	QR	Q=R						
arp26	FLY		LL100	Chemotherapy 26L(+)>(-)	Chemotherapy Lhetero>(-),homo, Immunotherapy Lhetero, (-)>homo	no adjuvant therapy FL(87), Immunotherapy FL(61.4)		Chemotherapy Lhetero, (-)>homo, Immunotherapy Lhetero, (-)>homo
arp28	DEH	28H=30G	EE83.3		Immunotherapy Ehetero, (-)>homo			Immunotherapy Ehetero, (-)>homo
arp30	CGHLR Y	30H=37L=38L=8 5A=85V	CC100	no adjuvant therapy H(+)>(-), Immunotherapy R(-)>(+) hetero	Immunotherapy >hetero		Immunotherap y R(-)>(+) hetero	Immunotherapy (68.6)
arp31	FIV	31V=38A=40F=4 0Y, 31(F=I)	FV80	Immunotherapy V(-)>(+) hetero	Immunotherapy V (- >hetero	Immunotherapy FF (55.5) F(60.7)	Immunotherap y V(-)>(+) hetero	Immunotherapy V(- >hetero

Fig. 56

	Diversity	Equivalence	Prognosis	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect
DR	Diversity		Other cancers	Total (+) vs (-)	Total (homo)	All cases	Total (+) vs (-)	Treatment Effect
arp32	HY	H=Y	HY64.8	Total	Total		Stomach	Stomach cancer
arp33	HN	H=N	HN64.5					
arp37	FLNSY	F=S	FL63.30	Chemotherapy F(-)>(+), no adjuvant therapy L (+)>(-), immunotherapy N(+)>(-)	Chemotherapy F(-) >hetero, homo, immunotherapy Nhetero (homo)>(-) immunotherapy A(-) >hetero	Chemotherapy LY(70.9), immunotherapy NS(72.5)	immunotherapy N(-)>(+)	immunotherapy Hhomo>((-) hetero, immunotherapy N(-)>(homo), hetero
arp38	ALV		LL100	immunotherapy A(-)>(+), no adjuvant therapy L(+)>(-)				immunotherapy NS(69.1)
arp40	FY	F=Y	FY75	immunotherapy Y(-)>(+)	immunotherapy Phomo>hetero, immunotherapy Y(-) >hetero	immunotherapy FF(57.5)	immunotherapy A(-)>(+)	immunotherapy A(-)>hetero
arp47	FY	F=Y	FY67.3					
arp57	ADSV		AV88.90	Chemotherapy A(-)>(+)	no adjuvant therapy Shetero, ((-))>homo	no adjuvant therapy SV(92.2), Chemotherapy DD(60.3), immunotherapy AD(76.2)		Chemotherapy FF(74.5) no adjuvant therapy SV(11 immunotherapy AD(83.3)
arp58	AE	A=E	AA63.5					
arp60	HAY		HS88.9	Chemotherapy H(-)>(+)	immunotherapy I(-)>homo, hetero, no adjuvant therapy Lhetero>(-), homo, Chemotherapy L(-)>hetero, homo	Chemotherapy YY (56.8) no adjuvant therapy IL(82.8), Chemotherapy FI(63.4), immunotherapy FL(68)		Chemotherapy II(74.8)
arp67	FIL		FF72.4	immunotherapy I(-)>(+), Chemotherapy L(-)>(+)				
arp70	DQR		RR69.4	Chemotherapy R(-)>(+)				no adjuvant therapy DQ (86.5)
arp71	AEKR		KR78.80	no adjuvant therapy K(-)>(+)	no adjuvant therapy Ahetero, ((-))>homo, Ehetero, ((-))>homo	no adjuvant therapy RR(81.8), immunotherapy ER(73.7)	no adjuvant therapy K(-)>(+)	no adjuvant therapy ER(91.7), Chemotherapy AA(77.8)
arp73	AG	73A=73G=74 R=74N=77N=77T	AG65.6,					Chemotherapy AA (58)
arp74	AELQR	R=N	ER1000	Chemotherapy E(-)>(+), immunotherapy E(+)>(-)	immunotherapy Ahetero ((-))>homo, immunotherapy Ehetero, homo>(-)	immunotherapy AE(67.9)	Chemotherapy G(-)>(+)	Chemotherapy G(-)>hetero Ahomo>hetero, immunotherapy Ahetero((-)homo, Chemotherapy(-)>hetero
arp77	NT	N=T	NT83.3					no adjuvant therapy EL(94 Chemotherapy AL (66.1), immunotherapy AE(67.5)
arp78	VY	V=Y	VV69.3					Chemotherapy TT(58)

Fig. 57

		Prognosis	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect
	Diversity	Equivalence		Total (+) vs (-)	Total (homo)	All cases	Total (+) vs (-)
DR		Other cancers		Total	Total		Total (homo)
arp85	Diversity AV	AA100		no adjuvant therapy A(+)>(-)			Stomach
arp86	GV	GG64					
arp96	EHQV	EE100G			no adjuvant therapy Q(-)>hetero>homo	no adjuvant therapy HY(81.8)	
arp98	EK	ED68.2					
arp104	AS	AS68.2					
arp120	NS	NN85.7			Immunotherapy N:homo<((-))>hetero, Immunotherapy S((-))>hetero		
arp133	LR	LR67.6				no adjuvant therapy RR(73.9)	
arp140	AT	TT67.4					
arp142	MV	MV67.6				no adjuvant therapy VV(79.9)	
arp149	HQV	QQ64.7					
arp164	FV						
arp166	QR	RR64.2		Immunotherapy Q(-)>hetero, Immunotherapy R(-)>hetero	Immunotherapy Q(-)>hetero, Immunotherapy R(-)>hetero	Immunotherapy Y RR(57.5)	Immunotherapy((-)>hetero, Immunotherapy R((-)>hetero(Same))
arp180	LV	LL83.3					
arp181	MT	MM68.1					
arp189	RS	SS100					
arp231	PQ	QQ64.7		Immunotherapy P(-)>hetero, Immunotherapy Q:hetero>homo	Immunotherapy P(-)>hetero, Immunotherapy Q:hetero>homo	Immunotherapy Y QQ(57.5)	Immunotherapy P((-)>hetero, Immunotherapy Q:hetero>homo
arp233	RT	RT65.9					
All survived		DR96EE(3)					

Fig. 58

	Diversity	Equivalence	Treatment Effect Total (+) vs (-)	Treatment Effect Total (homo)	Treatment Effect Other cancers	DR Cancer in Family	DR Metastases	DR Total t(ratio of advanced cancer)	DR
DR	Diversity				Other cancers				
arp 25	KR	K=R							
arp 24	FL	F=L							
arp 17	AT	A=T					FL80, LL22,90		
arp 16	AV	A=V							
arp 1	AS	A=S							
arp4	QR	Q=R							
arp9	EKW	9K=11D=26Y =28H=30G		no adjuvant therapy Whetero.(-) >homo	no adjuvant therapy AA(100)				AS73.3, AA44.40
arp10	EQY	10E=31V=38A =40Y=(166Q) =(166R)			no adjuvant therapy KW(89.9)				
arp11	DGLPSV	11G=13Y=14 E=14=K25Q= 25R=30L, 11S=12K=12T , 11P=13R		no adjuvant therapy Phetero.(-) >homo					
arp12	KT								
arp13	FGHRSY	13F=31F=31I		no adjuvant therapy Rhetero.(-) >homo, Chemotherapy Shetero.(-)>homo, Immunotherapy Shetero>(-), homo	no adjuvant therapy ER(90), Chemotherapy FR(72), Immunotherapy FS(100)			FT22.6, FF0, GR0, O	
arp14	EK	E=K					#		
arp16	HQY								
arp25	QR	Q=R						QQ100, YY6, 30	
arp26	FLY						#		
arp28	DEH	28H=30G		Chemotherapy F(-), (hetero)>homo	Chemotherapy EE100		#		
arp30	CDHLRY	30H=37L=38L =85A=85V		Chemotherapy hetero.(-)>homo					
arp31	FIV	31V=38A=40F =40Y, 31((F=I)							

Fig. 59

	Diversity	Equivalence	Treatment Effect Total (+) vs (-)	Treatment Effect Total (homo)	Treatment Effect Other cancers	DR Cancer in Family	DR Metastases	DR Total t(ratio of advanced cancer)	DR Smoking
DR	Diversity								
arp32	HY	H=Y	Other cancers Chemotherapy Y(+)>(-) Immunotherapy Y(+)>(-) Chemotherapy H(-)>(+)	Other cancers Chemotherapy H(-) >hetero>homo Immunotherapy hetero, (-) >homo, Chemotherapy Yhetero,homo>(-), Immunotherapy Yhetero,homo>(-)	Chemotherapy HY(55.6) Immunotherapy HY(55.6)				
arp33	HN	H=N							
arp37	FLNSY	F=S		Chemotherapy F(-) >(hetero)>homo, no adjuvant therapy Shetero, (-) >homo	no adjuvant therapy YY(81.3), Chemotherapy FS(100), Immunotherapy NS(80)	#		HN18.3, NN9.80	
arp38	ALV								
arp40	FY	F=Y							
arp47	FY	F=Y							
arp57	ADSV		Chemotherapy A(-)>(+)	Chemotherapy A(-)> (hetero)homo, Immunotherapy Shetero, (-) >homo	no adjuvant therapy SV(81.6), Chemotherapy VV(85.7), Immunotherapy DS(78.8)				
arp58	AE	A=E							
arp60	HAY			Chemotherapy H(-) >(hetero), homo	Chemotherapy SS(85.7), Immunotherapy HY(75) no adjuvant therapy FF85.7, IL78.3				
arp67	FIL								
arp70	DQR								
arp71	AEKR			no adjuvant therapy Ahetero, (-)>homo	no adjuvant therapy AR(74.9)				
arp73	AG	73A=73G=74 R=74N=77N= 77I							
arp74	AEQOR	R=N	no adjuvant therapy L(-) >(+)	no adjuvant therapy Ahetero, (-)>homo	no adjuvant therapy(AE81), Chemotherapy (AES4.4)				
arp77	NT	N=T							
arp78	VY	V=Y							

Fig. 60

	Diversity	Equivalence	Treatment Effect Total (+) vs (-)	Treatment Effect Total (homo)	Treatment Effect Other cancers	DR Cancer in Family	DR Metastases	DR Total (ratio of advanced cancer)	DR Smoking
DR	Diversity		Other cancers	Other cancers					
arp85	AV	A=V				AV38.7 AA00	#		
arp86	GV	G=V	Chemotherapy G(+)>(-)	Chemotherapy Ghomo,hetero>(-)	Chemotherapy VV(90)				
arp86	EHQY			no adjuvant therapy Q(-))hetero>homo	no adjuvant therapy HY(100)		#		
arp88	EK	98E=98K=104 A=104S	Immunotherapy K(+)>(-)	Immunotherapy Ehetero,(-) >homo, Immunotherapy	Immunotherapy EK(68.4)				
arp104	AS	A=S	Immunotherapy S(+)>(-)	Khetero,homo>(-) Immunotherapy Ahetero,(-) >homo, Immunotherapy	Immunotherapy AS(81.9)				
arp120	NS	S=N		Shetero,homo>(-)		#		#	
arp133	LR	133L=133R=1 42M=142V	no adjuvant therapy R(+)>(-)	no adjuvant therapy Lhetero,(-)>homo, no adjuvant therapy	no adjuvant therapy RR(69.1)				
arp140	AT			Rhomo,hetero>(-)					
arp142	MV	M=V	no adjuvant therapy V(+)>(-)	Mhetero,(-)>homo, no adjuvant therapy	no adjuvant therapy VV(69.1)				
arp149	HQY	H=Q		Vhomo,hetero>(-)					
arp164	FV								
arp166	QR	Q=R							
arp180	LV	L=V			no adjuvant therapy LV(100)	#			#
arp181	MT								
arp189	RS	R=S							
arp231	PQ	P=Q							
arp233	RT	R=T	Immunotherapy T(+)>(-)	Immunotherapy Rhetero,(-) >homo, Immunotherapy hetero,homo>(-)	Immunotherapy RT(77.9)				
	All survived								

Fig. 61

				Equivalence	Prognosis	Prognosis	Prognosis	Prognosis	Prognosis	Prognosis	Prognosis	Prognosis	Treatment Effect	Treatment Effect	Treatment Effect
					Total (+) vs (-) Total	Total (homo)	Prognosis	Total (+) vs (-) Stomach	Total (homo) Stomach	Stomach	Total (+) vs (-) Other cancers	Total (homo) Other cancers	Total (+) vs (-) Total	Total (homo) Total	All cases
DP	Diversity					Total		Total							
37	app8	LV		8L=8V=9F =11G=11L		LV67.4				VV77.8			Other cancers LV64.70		
38	app9	FHY				FY68.2				YY85.7			FY65.80		
40	app11	GL		G=L		GL67.3				LL77.8			GG64		
64	app35	FLY				FF68				FY76.90			GL64.70		
65	app36	AV		A=V		AA85.7				AA80			LL68.8, LY68.8		
84	app55	ADE				AA85.7				AA80			AA100		
													AA100		no adjuvant therapy AD(79)
85	app56	AE				EE67.5				EE70.8			AA67.3		
86	app57	DE				DD68.5				DD76			EE64.2		
94	app65	FIL		65I=65L		LL85.7				LL85.7			IL64.6		
98	app69	EK		E=K		EK68.6				EK69.4			EK67.90	no adjuvant therapy Ehetero>(- >> homo, no adjuvant therapy Ehetero>(h omo))(-)	no adjuvant therapy EK (81)
105	app76	IMV				II100				IV100			IM67.70		
113	app84	DG				DG66.9				GG70.8			DG65.9		
114	app85	EG				EG66.9				GG70.8			EG65.9		
115	app86	AP				AP66.9				PP70.8			AP65.9		

Fig. 62

[illegible]

		Treatment Effect Total (+) vs (-)	Treatment Effect Total (homo)	Treatment Effect Stomach cancer	Treatment Effect Total (+) vs (-)	Treatment Effect Total (homo)	Treatment Effect Other cancers	DP Category (rate of malignancy)	DP Metastases
DP	Diversity	Stomach	Stomach		Other cancers	Other cancers			
app8	LV							VV95.2 LL89.6O	
app9	FHY	Immunotherapy Y H(-)>(+)	Immunotherapy H(-) (homo)>hetero	Immunotherapy FY(67.1) FF(65)	no adjuvant therapy F(+)>(-)	no adjuvant therapy Vhetero (-)>homo Fhetero,homo>(-) no adjuvant therapy H(-))hetero>homo	no adjuvant therapy (LV) no adjuvant therapy (FY)	#	
app11	GL				no adjuvant therapy G(+)>(-)	no adjuvant therapy Ghetero,homo>(-), no adjuvant therapy L(-))hetero>homo	no adjuvant therapy (GL)	VV95.2 LL89.6O	
app35	FLY			Chemotherapy (FF)			Chemotherapy (LV)		#
app36	AV		Chemotherapy A(-) (homo)>hetero	Chemotherapy (VV)					
app55	ADE		Chemotherapy Vhomo,(-) >hetero		no adjuvant therapy A(+)>(-)	no adjuvant therapy Ahetero>(-),homo, no adjuvant therapy Ehetero>(-))homo	no adjuvant therapy DE(76.3) no adjuvant therapy AE(74.6)		AE44.8,AAO
app56	AE		Chemotherapy A(-) (homo)>hetero		no adjuvant therapy E(+)>(-)	no adjuvant therapy Dhetero (-)>homo, no adjuvant therapy Ehetero,homo>(-)	no adjuvant therapy DE (76.6)	VV96.3 LL89.6O	
app57	DE				no adjuvant therapy L(+)>(-)	no adjuvant therapy Lhetero>homo, no adjuvant therapy Lhetero,homo>(-), no adjuvant therapy E(-))hetero>homo, no adjuvant therapy Lhetero,homo>(-)			
app65	FIL				no adjuvant therapy K(+)>(-)		no adjuvant therapy EK(71.7)		
app69	EK	Immunotherapy Y E(-)>(+)	no adjuvant therapy Ehetero>(-))homo, Immunotherapy E(-) (hetero)>homo, no adjuvant therapy Khetero>(homo),(-), Immunotherapy Khomo (hetero)>(-) Chemotherapy (-), (homo)>hetero	no adjuvant therapy EK (85.4), Immunotherapy KK (58.3)					
app76	IMV			Chemotherapy MV(64)		no adjuvant therapy Vhetero, (-)>homo	no adjuvant therapy MV(79)	VV95.6 II66.7O	
app84	DG							DD92.1 GG87.8O	
app85	EG							EE92.1 GG87.6O	
app86	AP							VV92.1 MM87.6O	

[illegible]

Fig. 65

		DP	DP
DP	Diversity	Smoking	Age 50 (ratio, -49)
app8	LV		
app9	FHY		
app11	GL		
app35	FLY		
app36	AV		#
app55	ADE		AA45.5, AE15.6.0
app56	AE		#
app57	DE		
app65	FIL		
app69	EK		
app76	IMV	EK58.5, KK50.30	KK23.9, EE17.50
app84	DG		
app85	EG		
app86	AP		

Fig. 66

			DP	
DP			Smoking	DP
app87	Diversity			Age 50 (ratio, ~49)
app96	MV			
app170	KR			
app178	IT			
	LM		#	
Overall Prognosis	More than 3, all survived			

Diagram 67

			Equivalence	Prognosis Total (+) vs (-) Total	Prognosis Total (homo) Total	Prognosis Total (+) Vs (-) Stomach	Prognosis Total (homo) Stomach	Prognosis Stomach vs (-) Other cancers	Prognosis Total (+) vs (-) Other cancers	Prognosis Other cancers	Treatment Effect Total (+) Vs (-) Total
	DQ	Diversity									
12	aqp_27	AS									
	aqp_21	DG									
					GG66.7			DG67.7		DD87.5	no adjuvant therapy D(-)>(+)
	aqp_10	AS									
24	aqp_9	IM			II80			IM75.2		II100	
27	aqp_6	ST			TT66.7			ST67.7		SS87.5	no adjuvant therapy S(-)>(+)
28	aqp_5	LPS			LL80, SS80	L(-)>(+) L(-)>hetero	LL100			LS100, SS100	
29	aqp_4	LV			VV66.9			LV67.7		LL87.5	no adjuvant therapy L(-)>(+)
35	aqp3	PS	3P=3S=9L =37D		PS68			PS69.4		PS65.3	
41	aqp9	FLY		Y(+)>(-)	Yhetero>(-)	LY71.60		LY720	Y(+)>(-)	LY70.80	no adjuvant therapy Y(+)>(-), immunotherapy Y(+)>(-)
45	aqp13	AG			AA67			AG68.4		AA65.3	
46	aqp14	LM	L=M		LM70.1			LM72.4		LL70	
55	aqp23	LR	L=R		LR67.4			RR68.1	R(+)>(-)	LR67.20	
									Lhetero,(-) >homo Rhetero,ho mo>(-)		
	aqp26	GLY									
60	aqp28	ST	28S=28T= 30S=37I=4 6V=46E=4 7F=47Y=5 2P=52L=5 5L		ST68.2			ST77.8		TT63.4	
62	aqp30	HSY			SY75			HS100		SY100	immunotherapy H(+)>(-)
69	aqp37	DIY			DY68			IY83.3		DY65.3	

			Equivalence	Prognosis Total (+) Vs (-)	Prognosis Total (homo)	Prognosis Total	Prognosis Total (+) vs (-)	Prognosis Stomach	Prognosis Total (homo)	Prognosis Stomach	Prognosis Total (+) vs (-)	Prognosis Other cancers	Prognosis Total (+) vs (-)	Treatment Effect
DQ	Diversity			Total	Total		Stomach	Stomach	Stomach	Stomach	Other cancers	Other cancers	Total	
70	aqp38	AV	A=V	VV69.4						VV71.7			AV64.7	
77	aqp45	EG	E=G	EG67						EG68.6			EG64.2	
78	aqp46	EV	E=V	EV68.2						EV77.8			VV63.4	
79	aqp47	FY	F=Y	FV68.2						FY77.8			VV63.4	
84	aqp52	LPS	52P=52L	LP68.2						LP77.8			PP63.4	
85	aqp53	LQ	L=Q	QQ66.5						LQ68.5			QQ64.9	
87	aqp55	LPR	55P=55R	LP100Q						LR750			PR68.3	
88	aqp56	LP	L=P	LP67.20						LP68.4	P(+)>(-)	Lhetero<(-) > homo Phetero, ho mo>(-)	LP65.8	
89	aqp57	ADSV		AA64.7Q						AS100			SV80	
98	aqp66	DE	66D=66E= 67I=66V	DE70.1	Dhetero>(-) > homo Eh etero> homo o>(-)	E(+)>(-)	E(+)>(-)	Dhetero>(-) > homo, Ehetero>h omo>(-)	Dhetero<(-) > homo, Ehetero>ho mo>(-)	DE77.00	E(+)>(-)	Dhetero<(-) > homo, Ehetero>ho mo>(-)	DE67O	no adjuvant therapy E(+)>(-) Chemotherapy E(+)>(-) Immunotherapy E(+)>(-)
99	aqp67	IV	I=V	IV70.1O	Ihetero>(-) > homo, Vhetero>h omo>(-)	V(+)>(-)	V(+)>(-)	Ihetero>(-) > homo, Vhetero>h omo>(-)	Ihetero<(-) > homo, Vhetero>ho mo>(-)	IV72O	V(+)>(-)	Ihetero<(-) > homo, Vhetero>ho mo>(-)	IV67O	no adjuvant therapy V(+)>(-), Chemotherapy V(+)>(-), Immunotherapy V(+)>(-)
102	aqp70	EGR		GG68.1O						GR69.6			GG72.7O	
103	aqp71	ADKT		AK100G						KT83.3			AA70O	
106	aqp74	AES		AS80O						AE83.3			AS100	
107	aqp75	LV		LV69.6						LV71.5			LV66.4	
109	aqp77	RT		RT69.7						RT72.4			RR82.7	
116	aqp84	EQ		EE66.5						EQ68.5			EE64.9	
117	aqp85	LV		VV66.5						LV68.5			VV64.9	
118	aqp86	AEG		AG67.8						EG76.1			AG80.9O	

			Prognosis Total (+) vs (-) Total	Prognosis Total (homo)	Prognosis Total	Prognosis Total (+) vs (-) Stomach	Prognosis Total (homo)	Prognosis Stomach	Prognosis Total (+) Vs (-) Other cancers	Prognosis Total (homo) Other cancers	Prognosis Other cancers	Prognosis Total (+) vs (-) Total
	DQ	Diversity		Total				Stomach				
199	aqp87	FLY			FY72.1			LY72.1		Flhetero (-) > homo	FY75.9Q	Immunotherapy Y(+) > (-)
121	aqp89	GT			GG66.5			GT68.5			GG64.9	
122	aqp90	IT			II66.5			IT68.5			II64.9	
148	aqp116	IV										
157	aqp125	AGS			GS74.4			GS75.3			GS72.5	
158	aqp126	HQ			HQ71.4			QQ67.9			HQ71.5	
162	aqp130	QR			QR66.9			RR68.2			QR67.2	Immunotherapy R(+) > (-)
172	aqp140	AT			AA66.4			AT68.4			AA64.1	
199	aqp167	HR			HH67			HR68.4			HH65.3	
214	aqp182	NS			SS66.4			NS68.4			SS64.1	
217	aqp185	IT			II67.8			II69.4			II65	
229	aqp197	NS			NS68			NS69.4			NS65.3	
235	aqp203	IV			IV67.5			IV70.7			VV66.9	
252	aqp220	HR			RR66.5			HR68.5			RR64.9	
253	aqp221	HQ			QQ66.5			HQ68.5			QQ64.9	
256	aqp224	QR			QR70.1			QR72.4			RR70	
		All survived	DQ71AKD K(3)			DQ74AS(3)						

Diagram 70

		Treatment Effect Total (homo)	Treatment Effect All cases	Treatment Effect Total (+) Vs (-)	Treatment Effect Total (homo)	Treatment Effect Stomach cancer	Treatment Effect Total (+) Vs (-)	Treatment Effect Total (homo)	Treatment Effect Other cancers
DQ	Diversity	Total		Stomach			Other cancers		
aqp_27	AS								
aqp_21	DG	no adjuvant therapy D(-) >hetero (homo), no adjuvant therapy Ghomo>hetero,((-))	no adjuvant therapy GG87.8	no adjuvant therapy D(-)>(+)	no adjuvant therapy D(-) >hetero (homo), no adjuvant therapy Ghomo>hetero,((-))	no adjuvant therapy GG92.8			
aqp_10	AS								
aqp_9	IM								
aqp_6	ST	no adjuvant therapy S(-) >hetero (homo), no adjuvant therapy Thomo>hetero,((-))	no adjuvant therapy TT87.8	NIS S(-)>(+)	no adjuvant therapy S(-) >hetero (homo), no adjuvant therapy Thomo>hetero,((-))	no adjuvant therapy TT92.6			
aqp_5	LPS	no adjuvant therapy Phomo>hetero,((-))	immunotherapy PP62	no adjuvant therapy L(-)>(+)	no adjuvant therapy Lhetero>(-), no adjuvant therapy Phomo>hetero,((-))	no adjuvant therapy PP92.6	no adjuvant therapy L(-)>(+)		
aqp_4	LV	no adjuvant therapy L(-) >hetero (homo), no adjuvant therapy Vhomo>hetero,((-))	no adjuvant therapy VV87.8	no adjuvant therapy L(-)>(+)	no adjuvant therapy N(-) >hetero (homo), no adjuvant therapy Vhomo>hetero,((-))	no adjuvant therapy VV92.6			
aqp3	PS		no adjuvant therapy SS(78)				NI S(+)>(-)	no adjuvant therapy P(-) >hetero>homo, no adjuvant therapy Shomo>hetero>(-)	no adjuvant the SS(68.8)
aqp9	FLY	no adjuvant therapy Yhetero, homo>(-), immunotherapy Yhetero, homo>(-)	Chemotherapy LY(64.5), immunotherapy YY (63.9)	immunotherapy Y(+)>(-)	immunotherapy Hhetero>(-) ,homo, immunotherapy Yhetero>(-),homo	immunotherapy Y(62.9)	no adjuvant therapy Y(+)>(-), Chemotherapy Y(+)>(-)	immunotherapy Fhetero,(-)>homo, no adjuvant therapy Yhetero, homo>(-), Chemotherapy Yhetero, homo>(-)	no adjuvant the LY(75.1), Chemotherapy (65.8), immunotherapy (68.1)
aqp13	AG								
aqp14	LM								
aqp23	LR								
aqp26	GLY								
aqp28	ST								
aqp30	HSY	immunotherapy Hhetero>(-) ,homo, immunotherapy Yhetero>(-),homo	immunotherapy HY(69.6)		immunotherapy Hhetero>(-) ,homo, immunotherapy Yhetero>(-),homo	immunotherapy HY(65.2)			
aqp37	DIY		no adjuvant therapy YY(78.2), Chemotherapy DY(62.5)				no adjuvant therapy Y(+)>(-)	no adjuvant therapy D(-) >hetero>homo, no adjuvant therapy Dhomo, hetero>(-)	no adjuvant the YY (69.7)

Diagram 71

		Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect
		Total (homo)	All cases	Total (+) Vs (-)	Total (homo)	Stomach cancer	Total (+) Vs (-)	Total (homo)	Other cancers
DQ	Diversity	Total		Stomach	Stomach		Other cancers	Other cancers	Other cancers
aqp38	AV				Chemotherapy Ahetero>(-) homo, Chemotherapy Vhetero>(-) homo	Chemotherapy AV(65.2)	Chemotherapy A (+)>(-)	no adjuvant therapy V(-),hetero>homo, no adjuvant therapy Ahomo,hetero>(-)	no adjuvant therapy AV(71.3)
aqp45	EG								
aqp46	EV								
aqp47	FY								
aqp52	LPS								
aqp53	LQ								
aqp55	LPR								
aqp56	LP								
aqp57	ADSV	Immunotherapy Ahomo (all survived)>(-) ,hetero	Immunotherapy AA (100)		Immunotherapy Vhetero>(-)>homo, Chemotherapy Dhetero>(-) homo, Chemotherapy Ehetero>(-) homo	Immunotherapy AA(100)			
aqp66	DE	no adjuvant therapy Dhetero,(-)>homo, Chemotherapy Dhetero>(-) homo, Immunotherapy Dhetero,(-)>homo, no adjuvant therapy Ehetero,(-)>homo, Chemotherapy Ehetero>(-) homo, Immunotherapy Ehetero,homo>(-)	no adjuvant therapy EE(77.7), Chemotherapy DE(62.1), Immunotherapy EE(60.3)			Chemotherapy DE(65.1)		Chemotherapy Dhetero>(-) homo, Chemotherapy Ehetero (homo)>(-)	Chemotherapy DE
aqp67	IV	no adjuvant therapy Ihetero,(-), Chemotherapy Ihetero>(-) homo, Immunotherapy Ihetero,(-)>homo, no adjuvant therapy Vhetero,(-)>homo, Chemotherapy Vhetero>(-) homo, Immunotherapy Vhetero,homo>(-)	no adjuvant therapy IV(79.6), Chemotherapy DE(62.1), Immunotherapy EE(60.3)		Chemotherapy Ihetero>(-) homo, Chemotherapy Vhetero>(-) homo	Chemotherapy IV(65.1)		Chemotherapy Ihetero,(-)>homo, Chemotherapy Vhetero (homo)>(-)	Chemotherapy IV
aqp70	EGR								Chemotherapy VI
aqp71	ADKT								no adjuvant therapy AD(41.7) Chemotherapy IT
aqp74	AES								
aqp75	LV								
aqp77	RT								
aqp84	EQ								
aqp85	LV								
aqp86	AEG	Immunotherapy Ghetero>(-)>homo	Immunotherapy EG(78.2)	Immunot herapy		Chemotherapy AA 70.6, Immunotherapy		no adjuvant therapy Ahetero,(-)>homo	no adjuvant therapy AG(87.5)

Diagram 72

		E(-)>(+)		EG(60.8)	
		Treatment Effect	Treatment Effect	Treatment Effect	Treatment Effect
		Total (homo)	Total (+) Vs (-)	Total (+) Vs (-)	Total (homo)
DQ	Diversity	Total	Total (+) Vs (-)	Stomach cancer	Other cancers
aqp87	FLY	Immunotherapy (hetero>homo, (-))	Immunotherapy (-)>(+)	Chemotherapy FF(81.3) Immunotherapy LY(68.1)	no adjuvant therapy Fhetero, (-) >homo
aqp89	GT				no adjuvant therapy FY(75), YY(75)
aqp90	IT				
aqp116	IV				
aqp125	AGS				
aqp126	HQ				no adjuvant therapy AS(73.7)
aqp130	QR	Immunotherapy Chetero>(-)>homo, Immunotherapy Rhetero>homo>(-)	Immunotherapy QR(75)		
aqp140	AT				
aqp167	HR				
aqp182	NS				
aqp185	IT				
aqp197	NS			NIS SS(70)	no adjuvant therapy N(-) >hetero>homo, no adjuvant therapy Shomo, hetero>(-)
aqp203	IV				
aqp220	HR				
aqp221	HQ				
aqp224	QR				
	All survived				

Diagram 73

		DQ	DQ	DQ	DQ	DQ	DQ
		Cancer in Family	Category	Metastases	Alcohol	Smoking	
DQ	Diversity						
aqp_27	AS						
aqp_21	DG						
aqp_10	AS						
aqp_9	IM						
aqp_6	ST						
aqp_5	LPS						
aqp_4	LV						
aqp_3	PS			#			
aqp9	FLY						
aqp13	AG						
aqp14	LM			LL100, LM23.20			
aqp23	LR						
aqp26	GLY						
aqp28	ST						
aqp30	HSY			#			
aqp37	DIY					#	

Diagram 74

		DQ	DQ	DQ	DQ	DQ	DQ
		Cancer in Family	Category	Metastases	Alcohol	DQ	Smoking
DQ	Diversity						
aqp38	AV				#		
aqp45	EG	EE50, GG19.4 O			AV24.1, WV15.60		#
aqp46	EV						
aqp47	FY						
aqp52	LPS						
aqp53	LQ	LQ26.4, QQ12.5 O					
aqp55	LPR	PR29.7, LR0 O					
aqp56	LP						
aqp57	ADSV						
aqp66	DE						
aqp67	IV						
aqp70	EGR						
aqp71	ADKT						
aqp74	AES			#			
aqp75	LV						
aqp77	RT			RR100, RT22.5 O			
aqp84	EQ	EQ26.4, EE12.5 O					
aqp85	LV	LV26.4, WV12.5					
aqp86	AEG		GG94.4, EG82.8 O				

Diagram 75

		DQ	DQ	DQ	DQ	DQ	DQ
		Cancer in Family	Category	Metastases	Alcohol	Smoking	
DQ	Diversity						
aqp87	FLY			YY50, LL20 O			
aqp89	GT	GT26.4, GG12.5					
aqp90	IT	IT26.4, II12.5					
aqp166	IV			II100, IV23.2			
aqp125	AGS			SS100, AA20 O			
aqp126	HQ						
aqp130	QR		#				
aqp140	AT	AT26.8, AA12.2 O					
aqp167	HR						
aqp182	NS	NS26.8, SS12.2 O					
aqp158	IT						
aqp197	NS			#		DI66.7, DD39.1 O	
aqp203	IV	#		VV32, II22.2			
aqp220	HR	HR26.4, RR12.5 O					
aqp221	HQ	HQ26.4, QQ12.5 O					
aqp224	QR			RR100, QR23.2 O			
	All survived						

Diagram 76

DR	No. of Diversity	Total	Stomach	Other cancers	All cases Treatment Effect	Stomach Cancer Treatment Effect	Other cancers Treatment Effect
Nucleic Acid		Total					
-16	3		aGCGaGCG> aGCGaGCU				
4	3						
12	5				Immunotherapy: KAAAKAAA>KAAAGKAAG> KAAAKAAG	Immunotherapy: KAAAKAAA>KAAAGKAAG> KAAAKAAG	no adjuvant therapy: KAAAKAAG>KAAAGKAAG
14	3						
19	2						
26	5						
28	4		hCACeGAA> hCACeGAG				
34	3						
53	2						no adjuvant therapy: qCAAqCAA>qCAAqCAG
57	7			dGACdGAU> dGAUdGAU			no adjuvant therapy: dGACdGAU, dGAUdGAU>dGACdGAC, Chemotherapy: aGCCaGCU>aGCCaGCU, aGCCaGCU>aGCCaGCG
58	6			eGAGaGCC> eGAGaGCU	no adjuvant therapy: aGCCaGCC>aCGUaGCU, Chemotherapy: aGCUaGCU, aGCCaGCG, aGCCaGCU>aGCCaGCU		
69	3						
72	5		rCGGrCGG> rCGCrCGG		no adjuvant therapy: rCGCrCGG>rCGGrCGU	no adjuvant therapy: rCGCrCGG>rCGGrCGU Chemotherapy: rCGGrCGU, rCGGrCGG, rCGCrCGG>rCGCrCGC	
78	3						
90	2				Chemotherapy: yUACyUAC> yUAUyUAU		Chemotherapy:
93	2						

Diagram 77

DR		Total	Stomach	Other cancers	All cases	Stomach Cancer	Other cancers
Nucleic Acid	No. of Diversity	Total			Treatment Effect	Treatment Effect	Treatment Effect
95	2						
101	2						
104	3	aGCAaGCC> aGCAaGCA					no adjuvant therapy: vGUGvGUG, vGUAvGUG> vGUAvGUA
106	2						
112	2						
117	2						
145	2						
152	2						
166	3				no adjuvant therapy: rCGGrCGG> rCGArCGA		no adjuvant therapy: rCGGrCGG,rCGArCGG> rCGArCGA
169	2						
179	2						
181	3			tACAmAUG> tAGCmAUG			
206	2						
217	2						

Diagram 78

DR								
Nucleic Acid		No. of Diversity	Cancer in Family	Alcohol	Metastases	Smoking		
-16		3						
4		3						
12		5						
14		3						
19		2						
26		5						
28		4		eGAGeGAG(55.6), eGAAeGAG(0), eGAAeGAA(16.7)				
34		3						
53		2						
57		7						
58		6						
69		3						
72		5	rCGGrCGU(50), rCGCrCGG(40), rCGCrCGC(0)					
78		3						
90		2						
30		2						

Diagram 79

DR							
Nucleic Acid	No. of Diversity	Cancer in Family	Alcohol	Metastases	Smoking		
95	2			vGUCvGUC(33.2), vGUCvGUU(23.5), vGUUvGUU(42.9)			
101	2						
104	3						
106	2						
112	2						
117	2						
145	2						
152	2						
166	3						
169	2						
179	2						
181	3						
206	2						
217	2						

Diagram 80

DR	No. of Diversity	Total	Stomach	Other cancers	All cases Treatment Effect	Stomach Cancer Treatment Effect
Nucleic Acid		Total				
-29						
-23	2					
-15	2					no adjuvant therapy: pCCUpCCU>pCCCPCCU, pCCCCpCCC
DQNP19	2					
DQNP21	3			tACGIACC, tACGIACG>tACCIACC		Same curve as DQ_23 pCCUpCCU>pCCCPCCU, pCCCCpCCC
DQNP25	2					
DQNP27	2				Immunotherapy: vGUAvGUG, vGUGvGUG>vGUAvGUA	
DQNP35	2					
DQNP38	3			aGCAaGCG>aGCCGaGCG		
DQNP47	3					
DQNP48	2					
DQNP49	3					
DQNP57	6					
DQNP62	2			nAACnAAC, nAACnAAU>nAAU		
DQNP72	2					
DQNP77	4			tACCIACC, tACGIACG>tACCIACC		
DQNP78	2			vGUAvGUG, vGUGvGUG> vGUAvGUA		
DQNP91	2					
DQNP93	2					
DQNP94	2					

Diagram 81

DR		Total					
Nucleic Acid	No. of Diversity	Total	Stomach	Other cancers	All cases	Stomach Cancer Treatment Effect	
DQNP118	2						
DQNP135	3						
DQNP140	4						
DQNP147	2						
DQNP150	2						
DQNP154	2						
DQNP169	2						
DQNP191	2						
DQNP210	2						
DQNP213	2						
DQNP215	2						
DQNP218	2						
DQNP235	2						

Diagram 82

DR			Other cancers						
Nucleic Acid	No. of Diversity	Treatment Effect	Cancer in Family	Alcohol	Metastases	Smoking			
-29									
-23	2								
-15	2								
DQNP19	2	no adjuvant therapy: nAACnAAC, nAACnAAU> nAAunAAu				nAACnAAC(54.7), nAACnAAU(59.8), nAAUnAAU(39.1)			
DQNP 21	3	no adjuvant therapy: tACCIACG>tACAIACG							
DQNP25	2								
DQNP27	2								
DQNP35	2								
DQNP38	3	Chemotherapy: aGCAaGCG>aGCGaGCG							
DQNP47	3								
DQNP48	2								
DQNP49	3								
DQNP57	6								
DQNP62	2								
DQNP72	2	The Same curve with DQ19 rCGGrCGG, rCGArCGG>rCGArCGA				rCGArCGA(39.1), rCGrCGG(59.8), rCGGrCGG(54.7)			
DQNP77	4	Chemotherapy: rAGGrAGG>rAGArAGG, rAGArAGA							
DQNP78	2								
DQNP91	2				ICUGICUG(39.7), ICUGIUUG(26.8), IUUGIUUG(31.8)				
DQNP93	2								
DQNP94	2								

Diagram 83

DR			Other cancers						
Nucleic Acid	No. of Diversity	Treatment Effect	Cancer in Family	Alcohol	Metastases	Smoking			
DQNP118	2								
DQNP135	3				dGACdGAC(32.6), dGACdGAU(27.1), dGAUdGAU(34.4)				
DQNP140	4	no adjuvant therapy: aGCCaGCC>aCGUaGCU Immunotherapy: tACCaGCU>tACCaGCC		TACCtACC(50), tACCtACU(21.3), tACUtACU(20.5)					
DQNP147	2				ICUCICUC(47.8), ICUCICUU(24.5), ICUUICUU(32.1)				
DQNP150	2								
DQNP154	2								
DQNP169	2				dGACdGAC(32.6), dGACdGAU(27.1), dGAUdGAU(34.4)				
DQNP191	2								
DQNP210	2			ICUCICUC(50), ICUCICUG(18.6), ICUGICUG(22.5)					
DQNP213	2				ICUCICUC(32.6), ICUCICUU(27.1), ICUUICUU(34.4)				
DQNP215	2				LCUUICUU(47.8), ICUGICUU(24.5), ICUGICUG(32.1)				
DQNP218	2								
DQNP235	2								

Diagram 84

DP		Total			All Cases	Stomach Cancer	Other cancers
Nucleic Acid	No. of Diversity	Total	Stomach	Other cancers	Treatment Effect	Treatment Effect	Treatment Effect
98	2	All same with the survival curve					
107	2	All same with the survival curve					
118	2	All same with the survival curve					
167	2	All same with the survival curve					
179	2	All same with the survival curve					
		All NS					

Diagram 85

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
29	M						M	M	M	
28	M						M	M	M	
27	V						V	V	V	
26	L						L	L	L	
25	Q						Q	Q	Q	
24	V						V	V	V	
23	S						S	S	S	
22	A						A	A	A	
21	A						A	A	A	
20	P						P	P	P	
19	Q						R	R	R	
18	T						T	T	T	
17	V						V	V	V	
16	A						A	A	A	
15	L						L	L	L	
14	T						T	T	T	
13	A						A	A	A	
12	L						L	L	L	
11	L						L	L	L	
10	M						M	M	M	
9	V						V	V	V	
8	L						L	L	L	
7	L						L	L	L	
6	T						T	T	T	
5	S						S	S	S	
4	V						V	V	V	
3	V						V	V	V	
2	Q						Q	Q	Q	
1	G						G	G	G	
1	R						R	R	R	
2	A						A	A	A	
3	T						T	T	T	
4	P						P	P	P	
5	E						E	E	E	
6	N						N	N	N	
7	Y						Y	Y	Y	
8	L	V					L or V	L or V	L or V	
9	F	H	Y				()	()	()	DP8 LV and DP F
10	Q						Q	Q	Q	
11	G	L					G or L	G or L	G or L	
12	R						R	R	R	
13	Q						Q	Q	Q	
14	E						E	E	E	
15	C						C	C	C	
16	Y						Y	Y	Y	
17	A						A	A	A	
18	F						F	F	F	
19	N						N	N	N	
20	G						G	G	G	
21	T						T	T	T	
22	Q						Q	Q	Q	
23	R						R	R	R	
24	F						F	F	F	
25	L						L	L	L	
26	E						E	E	E	
27	R						R	R	R	
28	Y						Y	Y	Y	

Diagram 86

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
29	I						I	I	I	
30	Y						Y	Y	Y	
31	N						N	N	N	
32	R						R	R	R	
33	E						E	E	E	
34	E						E	E	E	
35	F	L	Y				()	()	()	
36	A	V					A or V	A or V	AV	
37	R						R	R	R	
38	F						F	F	F	
39	D						D	D	D	
40	S						S	S	S	
41	D						D	D	D	
42	V						V	V	V	
43	G						G	G	G	
44	E						E	E	E	
45	F						F	F	F	
46	R						R	R	R	
47	A						A	A	A	
48	V						V	V	V	
49	T						T	T	T	
50	E						E	E	E	
51	L						L	L	L	
52	G						G	G	G	
53	R						R	R	R	
54	P						P	P	P	
55	A	D	E				AD	()	()	
56	A	E					()	()	()	
57	D	E					()	DE	()	
58	Y						Y	Y	Y	
59	W						W	W	W	
60	N						N	N	N	
61	S						S	S	S	
62	Q						Q	Q	Q	
63	K						K	K	K	
64	D						D	D	D	
65	F	I	L				IL	I or L	I or L	
66	L						L	L	L	
67	E						E	E	E	
68	E						E	E	E	
69	E	K					EK	E or K	E or K	
70	R						R	R	R	
71	A						A	A	A	
72	V						V	V	V	
73	P						P	P	P	
74	D						D	D	D	
75	R						R	R	R	
76	I	M	V				()	()	IM	
77	C						C	C	C	
78	R						R	R	R	
79	H						H	H	H	
80	N						N	N	N	
81	Y						Y	Y	Y	
82	E						E	E	E	
83	L						L	L	L	
84	D	G					()	DG	()	
85	E	G					()	EG	()	

Diagram 87

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
86	A	P					()	()	()	
87	M	V					()	MV	()	
88	T						T	T	T	
89	L						L	L	L	
90	Q						Q	Q	Q	
91	R						R	R	R	
92	R						R	R	R	
93	V						V	V	V	
94	Q						Q	Q	Q	
95	P						P	P	P	
96	K	R					()	()	()	
97	V						V	V	V	
98	N						N	N	N	
99	V						V	V	V	
100	S						S	S	S	
101	P						P	P	P	
102	S						S	S	S	
103	K						K	K	K	
104	K						K	K	K	
105	G						G	G	G	
106	P						P	P	P	
107	L						L	L	L	
108	Q						Q	Q	Q	
109	H						H	H	H	
110	H						H	H	H	
111	N						N	N	N	
112	L						L	L	L	
113	L						L	L	L	
114	V						V	V	V	
115	C						C	C	C	
116	H						H	H	H	
117	V						V	V	V	
118	T						T	T	T	
119	D						D	D	D	
120	F						F	F	F	
121	Y						Y	Y	Y	
122	P						P	P	P	
123	G						G	G	G	
124	S						S	S	S	
125	I						I	I	I	
126	Q						Q	Q	Q	
127	V						V	V	V	
128	R						R	R	R	
129	W						W	W	W	
130	F						F	F	F	
131	L						L	L	L	
132	N						N	N	N	
133	G						G	G	G	
134	Q						Q	Q	Q	
135	E						E	E	E	
136	E						E	E	E	
137	T						T	T	T	
138	A						A	A	A	
139	G						G	G	G	
140	V						V	V	V	
141	V						V	V	V	
142	S						S	S	S	
143	T						T	T	T	
144	N						N	N	N	

Diagram 88

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
145	L						L	L	L	
146	I						I	I	I	
147	R						R	R	R	
148	N						N	N	N	
149	G						G	G	G	
150	D						D	D	D	
151	W						W	W	W	
152	T						T	T	T	
153	F						F	F	F	
154	Q						Q	Q	Q	
155	I						I	I	I	
156	L						L	L	L	
157	V						V	V	V	
158	M						M	M	M	
159	L						L	L	L	
160	E						E	E	E	
161	M						M	M	M	
162	T						T	T	T	
163	P						P	P	P	
164	Q						Q	Q	Q	
165	Q						Q	Q	Q	
166	G						G	G	G	
167	D						D	D	D	
168	V						V	V	V	
169	Y						Y	Y	Y	
170	I	T					I	I	I	
171	C						C	C	C	
172	Q						Q	Q	Q	
173	V						V	V	V	
174	E						E	E	E	
175	H						H	H	H	
176	T						T	T	T	
177	S						S	S	S	
178	L	M					LM	I	I	
179	D						D	D	D	
180	S						S	S	S	
181	P						P	P	P	
182	V						V	V	V	
183	T						T	T	T	
184	V						V	V	V	
185	E						E	E	E	
186	W						W	W	W	
187	K						K	K	K	
188	A						A	A	A	
189	Q						Q	Q	Q	
190	S						S	S	S	
191	D						D	D	D	
192	S						S	S	S	
193	A						A	A	A	
194	R						R	R	R	
195	S						S	S	S	
196	K						K	K	K	
197	T						T	T	T	
198	L						L	L	L	
199	T						T	T	T	
200	G						G	G	G	
201	A						A	A	A	
202	G						G	G	G	
203	G						G	G	G	

Diagram 89

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
204	F						F	F	F	
205	V						V	V	V	
206	L						L	L	L	
207	G						G	G	G	
208	L						L	L	L	
209	I						I	I	I	
210	I						I	I	I	
211	C						C	C	C	
212	G						G	G	G	
213	V						V	V	V	
214	G						G	G	G	
215	I						I	I	I	
216	F						F	F	F	
217	M						M	M	M	
218	H						H	H	H	
219	R						R	R	R	
220	R						R	R	R	
221	S						S	S	S	
222	K						K	K	K	
223	K						K	K	K	
224	V						V	V	V	
225	Q						Q	Q	Q	
226	R						R	R	R	
227	G						G	G	G	
228	S						S	S	S	
229	A						A	A	A	

"or" – expected to be the same antigen

Diagram 90

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
32	M						M	M	M	
31	S						S	S	S	
30	W						W	W	W	
29	K						K	K	K	
28	K						K	K	K	
27	A	S					()	()	()	
26	L						L	L	L	
25	R						R	R	R	
24	I						I	I	I	
23	P						P	P	P	
22	G						G	G	G	
21	D	G					GG	()	GG	
20	L						L	L	L	
19	R						R	R	R	
18	A	V					()	()	()	
17	A						A	A	A	
16	T						T	T	T	
15	V						V	V	V	
14	T						T	T	T	
13	L						L	L	L	
12	M						M	M	M	
11	L						L	L	L	
10	A	S					()	()	()	
9	I	M					()	()	()	
8	L						L	L	L	
7	S						S	S	S	
6	S	T					TT	()	TT	
5	L	P	S				()	()	PP	
4	L	V					VV	()	VV	
3	A						A	A	A	
2	E						E	E	E	
1	G						G	G	G	
1	R						R	R	R	
2	D						D	D	D	
3	P	S					SS	PS	P or S	
4	P						P	P	P	
5	E						E	E	E	
6	D						D	D	D	
7	F						F	F	F	
8	V						V	V	V	
9	F	L	Y				()	LY	YY	DQ3 PS is same as DQ9 L
10	Q						Q	Q	Q	
11	F						F	F	F	
12	K						K	K	K	
13	A	G					()	AA	GG	
14	L	M					L or M	L or M	LM	
15	C						C	C	C	
16	Y						Y	Y	Y	
17	F						F	F	F	
18	T						T	T	T	
19	N						N	N	N	
20	G						G	G	G	
21	T						T	T	T	
22	E						E	E	E	
23	L	R					LR	L or R	RR	
24	V						V	V	V	
25	R						R	R	R	
26	G	L	Y				()	()	()	
27	V						V	V	V	

Diagram 91

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
28	S	T					S or T	S or T	S or T	
29	R						R	R	R	
30	H	S	Y				HH	()	HY	
31	I						I	I	I	
32	Y						Y	Y	Y	
33	N						N	N	N	
34	R						R	R	R	
35	E						E	E	E	
36	E						E	E	E	
37	D	I	Y				YY	DY	()	DQ28 ST is same as DQ37I
38	A	V					A or V	A or V	A or V	
39	R						R	R	R	
40	F						F	F	F	
41	D						D	D	D	
42	S						S	S	S	
43	D						D	D	D	
44	V						V	V	V	
45	E	G					E or G	EG	E or G	
46	E	V					()	()	()	DQ28 ST is same as DQ46VE
47	F	Y					()	()	()	DQ28 ST is same as DQ47FY
48	R						R	R	R	
49	A						A	A	A	
50	V						V	V	V	
51	T						T	T	T	
52	L	P					()	()	()	DQ28 ST is same as DQ52PL
53	L	Q					LL	L or Q	L or Q	
54	G						G	G	G	
55	L	P	R				P or R	P or R	P or R	DQ28 ST is same as DQ55L
56	L	P					LP	PP	L or P	
57	A	D	S	V			()	()	AA	
58	A						A	A	A	
59	E						E	E	E	
60	Y						Y	Y	Y	
61	W						W	W	W	
62	N						N	N	N	
63	S						S	S	S	
64	Q						Q	Q	Q	
65	K						K	K	K	
66	D	E					DE	DE	EE	
67	I	V					IV	IV	VV	
68	L						L	L	L	
69	E						E	E	E	
70	E	G	R				()	()	()	
71	A	D	K	T			()	()	AT	
72	R						R	R	R	
73	A						A	A	A	
74	A	E	S				ES	()	ES	
75	L	V					LV	()	()	
76	D						D	D	D	
77	R	T					()	()	RT	
78	V						V	V	V	
79	C						C	C	C	
80	R						R	R	R	
81	H						H	H	H	
82	N						N	N	N	
83	Y						Y	Y	Y	
84	E	Q					QQ	()	QQ	
85	L	V					LL	()	()	
86	A	E	G				()	()	EG	

Diagram 92

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
87	F	L	Y				FY	()	LY	
88	R						R	R	R	
89	G	T					TT	()	()	
90	I	T					TT	()	()	
91	L						L	L	L	
92	Q						Q	Q	Q	
93	R						R	R	R	
94	R						R	R	R	
95	V						V	V	V	
96	E						E	E	E	
97	P						P	P	P	
98	T						T	T	T	
99	V						V	V	V	
100	T						T	T	T	
101	I						I	I	I	
102	S						S	S	S	
103	P						P	P	P	
104	S						S	S	S	
105	R						R	R	R	
106	T						T	T	T	
107	E						E	E	E	
108	A						A	A	A	
109	L						L	L	L	
110	N						N	N	N	
111	H						H	H	H	
112	H						H	H	H	
113	N						N	N	N	
114	L						L	L	L	
115	L						L	L	L	
116	I	V					()	()	IV	
117	C						C	C	C	
118	S						S	S	S	
119	V						V	V	V	
120	T						T	T	T	
121	D						D	D	D	
122	F						F	F	F	
123	Y						Y	Y	Y	
124	P						P	P	P	
125	A	G	S				GS	()	()	
126	H	Q					()	HQ	()	
127	I						I	I	I	
128	K						K	K	K	
129	V						V	V	V	
130	Q	R					()	RR	QR	
131	W						W	W	W	
132	F						F	F	F	
133	R						R	R	R	
134	N						N	N	N	
135	D						D	D	D	
136	Q						Q	Q	Q	
137	E						E	E	E	
138	E						E	E	E	
139	T						T	T	T	
140	A	T					TT	()	()	
141	G						G	G	G	
142	V						V	V	V	
143	V						V	V	V	
144	S						S	S	S	
145	T						T	T	T	

Diagram 93

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
146	P						P	P	P	
147	L						L	L	L	
148	I						I	I	I	
149	T						T	T	T	
150	N						N	N	N	
151	G						G	G	G	
152	D						D	D	D	
153	W						W	W	W	
154	T						T	T	T	
155	F						F	F	F	
156	Q						Q	Q	Q	
157	I						I	I	I	
158	L						L	L	L	
159	V						V	V	V	
160	M						M	M	M	
161	L						L	L	L	
162	E						E	E	E	
163	M						M	M	M	
164	T						T	T	T	
165	P						P	P	P	
166	Q						Q	Q	Q	
167	H	R					()	HH	RR	
168	G						G	G	G	
169	D						D	D	D	
170	V						V	V	V	
171	Y						Y	Y	Y	
172	T						T	T	T	
173	C						C	C	C	
174	H						H	H	H	
175	V						V	V	V	
176	E						E	E	E	
177	H						H	H	H	
178	P						P	P	P	
179	S						S	S	S	
180	L						L	L	L	
181	Q						Q	Q	Q	
182	N	S					NN	()	()	
183	P						P	P	P	
184	I						I	I	I	
185	I	T					II	TT	()	
186	V						V	V	V	
187	E						E	E	E	
188	W						W	W	W	
189	R						R	R	R	
190	A						A	A	A	
191	Q						Q	Q	Q	
192	S						S	S	S	
193	E						E	E	E	
194	S						S	S	S	
195	A						A	A	A	
196	Q						Q	Q	Q	
197	N	S					SS	NS	()	
198	K						K	K	K	
199	M						M	M	M	
200	L						L	L	L	
201	S						S	S	S	
202	G						G	G	G	
203	I	V					()	()	()	
204	G						G	G	G	

Diagram 94

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
205	G						G	G	G	
206	F						F	F	F	
207	V						V	V	V	
208	L						L	L	L	
209	G						G	G	G	
210	L						L	L	L	
211	I						I	I	I	
212	F						F	F	F	
213	L						L	L	L	
214	G						G	G	G	
215	L						L	L	L	
216	G						G	G	G	
217	L						L	L	L	
218	I						I	I	I	
219	I						I	I	I	
220	H	R					HH	()	()	
221	H	Q					HH	()	()	
222	R						R	R	R	
223	S						S	S	S	
224	Q	R					()	()	QR	
225	K						K	K	K	
226	G						G	G	G	
227	P						P	P	P	
228	Q						Q	Q	Q	
229	G						G	G	G	
230	P						P	P	P	
231	P						P	P	P	
232	P						P	P	P	
233	A						A	A	A	
234	G						G	G	G	
235	L						L	L	L	
236	L						L	L	L	
237	H						H	H	H	

Diagram 95

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
29	M						M	M	M	
28	V						V	V	V	
27	C						C	C	C	
26	L						L	L	L	
25	K	R					RR	RR	RR	
24	F	L					F or L	F or L	F or L	
23	P						P	P	P	
22	G						G	G	G	
21	G						G	G	G	
20	S						S	S	S	
19	C						C	C	C	
18	M						M	M	M	
17	A	T					AA	AA	AA	
16	A	V					VV	VV	A or V	
15	L						L	L	L	
14	T						T	T	T	
13	V						V	V	V	
12	T						T	T	T	
11	L						L	L	L	
10	M						M	M	M	
9	V						V	V	V	
8	L						L	L	L	
8	S						S	S	S	
6	S						S	S	S	
5	P						P	P	P	
4	L						L	L	L	
3	A						A	A	A	
2	L						L	L	L	
1	A	S					A or S	A or S	AA	
1	G						G	G	G	
2	D						D	D	D	
3	T						T	T	T	
4	Q	R					Q or R	Q or R	QR	
5	P						P	P	P	
6	R						R	R	R	
7	F						F	F	F	
8	L						L	L	L	
9	E	K	W				()	WW	KW	
10	E	Q	Y				YY	()	()	
11	D	G	L	P	S	V	DS	()	DP	
12	K	T					K or T	K or T	K or T	
13	F	G	H	R	S	Y	GH	()	FS	
14	E	K					E or K	E or K	E or K	
15	C						C	C	C	
16	H	Q	Y				()	YY	()	
17	F						F	F	F	
18	F						F	F	F	
19	N						N	N	N	
20	G						G	G	G	
21	T						T	T	T	
22	E						E	E	E	
23	R						R	R	R	
24	V						V	V	V	
25	Q	R					Q or R	Q or R	Q or R	
26	F	L	Y				FL	()	FL	
27	L						L	L	L	
28	D	E	H				()	()	()	
29	R						R	R	R	
30	C	G	H	L	R	Y	()	()	()	

Diagram 96

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
31	F	I	V				F or I	F or I	FI	
32	H	Y					HH	()	()	
33	H	N					()	()	HH	
34	Q						Q	Q	Q	
35	E						E	E	E	
36	E						E	E	E	
37	F	L	N	S	Y		()	LY	NS	
38	A	L	V				()	()	VV	
39	R						R	R	R	
40	F	Y					F or Y	F or Y	FF	
41	D						D	D	D	
42	S						S	S	S	
43	D						D	D	D	
44	V						V	V	V	
45	G						G	G	G	
46	E						E	E	E	
47	F	Y					F or Y	F or Y	F or Y	
48	R						R	R	R	
49	A						A	A	A	
50	V						V	V	V	
51	T						T	T	T	
52	E						E	E	E	
53	L						L	L	L	
54	G						G	G	G	
55	R						R	R	R	
56	P						P	P	P	
57	A	D	S	V			AV	AV	AV	
58	A	E					A or E	A or E	A or E	
59	E						E	E	E	
60	H	S	Y				()	YY	HS	
61	W						W	W	W	
62	N						N	N	N	
63	S						S	S	S	
64	Q						Q	Q	Q	
65	K						K	K	K	
66	D						D	D	D	
67	F	I	L				FF	FI	FL	
68	L						L	L	L	
69	E						E	E	E	
70	D	Q	R				()	DD	()	
71	A	E	K	R			A	A	A	
72	R						R	R	R	
73	A	G					AA	A or G	A or G	
74	A	E	L	Q	R		()	LL	AE	
75	V						V	V	V	
76	D						D	D	D	
77	N	T					N or T	N or T	N or T	
78	V	Y					VV	V or Y	VY	
79	C						C	C	C	
80	R						R	R	R	
81	H						H	H	H	
82	N						N	N	N	
83	Y						Y	Y	Y	
84	G						G	G	G	
85	A	V					A or V	A or V	VV	
86	G	V					VV	GV	GG	
87	E						E	E	E	
88	S						S	S	S	
89	F						F	F	F	

Diagram 97

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
90	T						T	T	T	
91	V						V	V	V	
92	Q						Q	Q	Q	
93	R						R	R	R	
94	R						R	R	R	
95	V						V	V	V	
96	E	H	Q	Y			EQ	()	()	
97	P						P	P	P	
98	E	K					EK	E or K	EK	
99	V						V	V	V	
100	T						T	T	T	
101	V						V	V	V	
102	Y						Y	Y	Y	
103	P						P	P	P	
104	A	S					AA	A or S	AK	O
105	K						K	K	K	
106	T						T	T	T	
107	Q						Q	Q	Q	
108	P						P	P	P	
109	L						L	L	L	
110	Q						Q	Q	Q	
111	H						H	H	H	
112	H						H	H	H	
113	N						N	N	N	
114	L						L	L	L	
115	L						L	L	L	
116	V						V	V	V	
117	C						C	C	C	
118	S						S	S	S	
119	V						V	V	V	
120	N	S					S or N	NN	SS	
121	F						F	F	F	
122	G						G	G	G	
123	Y						Y	Y	Y	
124	P						P	P	P	
125	G						G	G	G	
126	S						S	S	S	
127	I						I	I	I	
128	E						E	E	E	
129	V						V	V	V	
130	R						R	R	R	
131	W						W	W	W	
132	F						F	F	F	
133	L	R					RR	L or R	RR	
134	N						N	N	N	
135	G						G	G	G	
136	Q						Q	Q	Q	
137	E						E	E	E	
138	E						E	E	E	
139	K						K	K	K	
140	A	T					()	TT	()	
141	G						G	G	G	
142	M	V					VV	M or V	VV	
143	V						V	V	V	
144	S						S	S	S	
145	T						T	T	T	
146	G						G	G	G	
147	L						L	L	L	
148	I						I	I	I	

Diagram 98

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
149	H	Q					H or Q	HH	HH	
150	N						N	N	N	
151	G						G	G	G	
152	D						D	D	D	
153	W						W	W	W	
154	T						T	T	T	
155	F						F	F	F	
156	Q						Q	Q	Q	
157	T						T	T	T	
158	L						L	L	L	
159	V						V	V	V	
160	M						M	M	M	
161	L						L	L	L	
162	E						E	E	E	
163	T						T	T	T	
164	F	V					()	()	()	
165	P						P	P	P	
166	Q	R					Q or R	Q or R	RR	
167	S						S	S	S	
168	G						G	G	G	
169	E						E	E	E	
170	V						V	V	V	
171	Y						Y	Y	Y	
172	T						T	T	T	
173	C						C	C	C	
174	Q						Q	Q	Q	
175	V						V	V	V	
176	E						E	E	E	
177	H						H	H	H	
178	P						P	P	P	
179	S						S	S	S	
180	L	V					L or V	L or V	L or V	
181	M	T					()	()	()	
182	S						S	S	S	
183	P						P	P	P	
184	L						L	L	L	
185	T						T	T	T	
186	V						V	V	V	
187	E						E	E	E	
188	W						W	W	W	
189	R	S					RR	R or S	R or S	
190	A						A	A	A	
191	R						R	R	R	
192	S						S	S	S	
193	E						E	E	E	
194	S						S	S	S	
195	A						A	A	A	
196	Q						Q	Q	Q	
197	S						S	S	S	
198	K						K	K	K	
199	M						M	M	M	
200	L						L	L	L	
201	S						S	S	S	
202	G						G	G	G	
203	V						V	V	V	
204	G						G	G	G	
205	G						G	G	G	
206	F						F	F	F	
207	V						V	V	V	

Diagram 99

Position	Diverse Amino Acid						no adjuvant therapy	Chemotherapy	Immunotherapy	
208	L						L	L	L	
209	G						G	G	G	
210	L						L	L	L	
211	L						L	L	L	
212	F						F	F	F	
213	L						L	L	L	
214	G						G	G	G	
215	A						A	A	A	
216	G						G	G	G	
217	L						L	L	L	
218	F						F	F	F	
219	I						I	I	I	
220	Y						Y	Y	Y	
221	F						F	F	F	
222	R						R	R	R	
223	N						N	N	N	
224	Q						Q	Q	Q	
225	K						K	K	K	
226	G						G	G	G	
227	H						H	H	H	
228	S						S	S	S	
229	G						G	G	G	
230	L						L	L	L	
231	P	Q					P or Q	P or Q	QQ	
232	P						P	P	P	
233	R	T					R or T	R or T	R or T	
234	G						G	G	G	
235	F						F	F	F	
236	L						L	L	L	
237	S						S	S	S	

Diagram 100

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
29	M						M
28	M						M
27	V						V
26	L						L
25	Q						Q
24	V						V
23	S						S
22	A						A
21	A						A
20	P						P
19	R						R
18	T						T
17	V						V
16	A						A
15	L						L
14	T						T
13	A						A
12	L						L
11	L						L
10	M						M
9	V						V
8	L						L
7	L						L
6	T						T
5	S						S
4	V						V
3	V						V
2	Q						Q
1	G						G
1	R						R
2	A						A
3	T						T
4	P						P
5	E						E
6	N						N
7	Y						Y
8	L	V					()
9	F	H	Y				()
10	Q						Q
11	G	L					()
12	R						R
13	Q						Q
14	E						E
15	C						C
16	Y						Y
17	A						A
18	F						F
19	N						N
20	G						G
21	T						T
22	Q						Q
23	R						R
24	F						F
25	L						L
26	E						E
27	R						R
28	Y						Y
29	I						I
30	Y						Y

Diagram 101

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
31	N						N
32	R						R
33	E						E
34	E						E
35	F	L	Y				Q
36	A	V					Q
37	R						R
38	F						F
39	D						D
40	S						S
41	D						D
42	V						V
43	G						G
44	E						E
45	F						F
46	R						R
47	A						A
48	V						V
49	T						T
50	E						E
51	L						L
52	G						G
53	R						R
54	P						P
55	A	D	E				AA
56	A	E					Q
57	D	E					Q
58	Y						Y
59	W						W
60	N						N
61	S						S
62	Q						Q
63	K						K
64	D						D
65	F	I	L				Q
66	L						L
67	E						E
68	E						E
69	E	K					Q
70	R						R
71	A						A
72	V						V
73	P						P
74	D						D
75	R						R
76	I	M	V				Q
77	C						C
78	R						R
79	H						H
80	N						N
81	Y						Y
82	E						E
83	L						L
84	D	G					Q
85	E	G					Q
86	A	P					Q
87	M	V					Q
88	T						T
89	L						L

Diagram 102

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
90	Q						Q
91	R						R
92	R						R
93	V						V
94	Q						Q
95	P						P
96	K	R					Q
97	V						V
98	N						N
99	V						V
100	S						S
101	P						P
102	S						S
103	K						K
104	K						K
105	G						G
106	P						P
107	L						L
108	Q						Q
109	H						H
110	H						H
111	N						N
112	L						L
113	L						L
114	V						V
115	C						C
116	H						H
117	V						V
118	T						T
119	D						D
120	F						F
121	Y						Y
122	P						P
123	G						G
124	S						S
125	I						I
126	Q						Q
127	V						V
128	R						R
129	W						W
130	F						F
131	L						L
132	N						N
133	G						G
134	Q						Q
135	E						E
136	E						E
137	T						T
138	A						A
139	G						G
140	V						V
141	V						V
142	S						S
143	T						T
144	N						N
145	L						L
146	I						I
147	R						R
148	N						N

Diagram 103

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
149	G						G
150	D						D
151	W						W
152	T						T
153	F						F
154	Q						Q
155	I						I
156	L						L
157	V						V
158	M						M
159	L						L
160	E						E
161	M						M
162	T						T
163	P						P
164	Q						Q
165	Q						Q
166	G						G
167	D						D
168	V						V
169	Y						Y
170	I	T					I
171	C						C
172	Q						Q
173	V						V
174	E						E
175	H						H
176	T						T
177	S						S
178	L	M					I
179	D						D
180	S						S
181	P						P
182	V						V
183	T						T
184	V						V
185	E						E
186	W						W
187	K						K
188	A						A
189	Q						Q
190	S						S
191	D						D
192	S						S
193	A						A
194	R						R
195	S						S
196	K						K
197	T						T
198	L						L
199	T						T
200	G						G
201	A						A
202	G						G
203	G						G
204	F						F
205	V						V
206	L						L
207	G						G

Diagram 104

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
208	L						L
209	I						I
210	I						I
211	C						C
212	G						G
213	V						V
214	G						G
215	I						I
216	F						F
217	M						M
218	H						H
219	R						R
220	R						R
221	S						S
222	K						K
223	K						K
224	V						V
225	Q						Q
226	R						R
227	G						G
228	S						S
229	A						A

Diagram 105

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
32	M						M
31	S						S
30	W						W
29	K						K
28	K						K
27	A	S					()
26	L						L
25	R						R
24	I						I
23	P						P
22	G						G
21	D	G					()
20	L						L
19	R						R
18	A	V					()
17	A						A
16	T						T
15	V						V
14	T						T
13	L						L
12	M						M
11	L						L
10	A	S					()
9	I	M					()
8	L						L
7	S						S
6	S	T					()
5	L	P	S				()
4	L	V					()
3	A						A
2	E						E
1	G						G
1	R						R
2	D						D
3	P	S					()
4	P						P
5	E						E
6	D						D
7	F						F
8	V						V
9	F	L	Y				()
10	Q						Q
11	F						F
12	K						K
13	A	G					()
14	L	M					LM
15	C						C
16	Y						Y
17	F						F
18	T						T
19	N						N
20	G						G
21	T						T
22	E						E
23	L	R					()
24	V						V
25	R						R
26	G	L	Y				()
27	V						V

Diagram 106

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
28	S	T					()
29	R						R
30	H	S	Y				()
31	I						I
32	Y						Y
33	N						N
34	R						R
35	E						E
36	E						E
37	D	I	Y				()
38	A	V					()
39	R						R
40	F						F
41	D						D
42	S						S
43	D						D
44	V						V
45	E	G					()
46	E	V					()
47	F	Y					()
48	R						R
49	A						A
50	V						V
51	T						T
52	L	P					()
53	L	Q					()
54	G						G
55	L	P	R				()
56	L	P					()
57	A	D	S	V			()
58	A						A
59	E						E
60	Y						Y
61	W						W
62	N						N
63	S						S
64	Q						Q
65	K						K
66	D	E					()
67	I	V					()
68	L						L
69	E						E
70	E	G	R				()
71	A	D	K	T			()
72	R						R
73	A						A
74	A	E	S				()
75	L	V					()
76	D						D
77	R	T					RT
78	V						V
79	C						C
80	R						R
81	H						H
82	N						N
83	Y						Y
84	E	Q					()
85	L	V					()
86	A	E	G				()

Diagram 107

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
87	F	L	Y				LL
88	R						R
89	G	T					()
90	I	T					()
91	L						L
92	Q						Q
93	R						R
94	R						R
95	V						V
96	E						E
97	P						P
98	T						T
99	V						V
100	T						T
101	I						I
102	S						S
103	P						P
104	S						S
105	R						R
106	T						T
107	E						E
108	A						A
109	L						L
110	N						N
111	H						H
112	H						H
113	N						N
114	L						L
115	L						L
116	I	V					IV
117	C						C
118	S						S
119	V						V
120	T						T
121	D						D
122	F						F
123	Y						Y
124	P						P
125	A	G	S				AA
126	H	Q					()
127	I						I
128	K						K
129	V						V
130	Q	R					()
131	W						W
132	F						F
133	R						R
134	N						N
135	D						D
136	Q						Q
137	E						E
138	E						E
139	T						T
140	A	T					()
141	G						G
142	V						V
143	V						V
144	S						S
145	T						T

Diagram 108

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
146	P						P
147	L						L
148	I						I
149	R						R
150	N						N
151	G						G
152	D						D
153	W						W
154	T						T
155	F						F
156	Q						Q
157	I						I
158	L						L
159	V						V
160	M						M
161	L						L
162	E						E
163	M						M
164	T						T
165	P						P
166	Q						Q
167	H	R					Q
168	G						G
169	D						D
170	V						V
171	Y						Y
172	T						T
173	C						C
174	H						H
175	V						V
176	E						E
177	H						H
178	P						P
179	S						S
180	L						L
181	Q						Q
182	N	S					Q
183	P						P
184	I						I
185	I	T					Q
186	V						V
187	E						E
188	W						W
189	R						R
190	A						A
191	Q						Q
192	S						S
193	E						E
194	S						S
195	A						A
196	Q						Q
197	N	S					Q
198	K						Q
199	M						K
200	L						M
201	S						L
202	G						S
203	I	V					G
204	G						I
							G

Diagram 109

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
205	G						G
206	F						F
207	V						V
208	L						L
209	G						G
210	L						L
211	I						I
212	F						F
213	L						L
214	G						G
215	L						L
216	G						G
217	L						L
218	I						I
219	I						I
220	H	R					()
221	H	Q					()
222	R						R
223	S						S
224	Q	R					QR
225	K						K
226	G						G
227	P						P
228	Q						Q
229	G						G
230	P						P
231	P						P
232	P						P
233	A						A
234	G						G
235	L						L
236	L						L
237	H						H

Diagram 110

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
29	M						M
28	V						V
27	C						C
26	L						L
25	K	R					Q
24	F	L					LL
23	P						P
22	G						G
21	G						G
20	S						S
19	C						C
18	M						M
17	A	T					Q
16	A	V					Q
15	L						L
14	T						T
13	V						V
12	T						T
11	L						L
10	M						M
9	V						V
8	L						L
8	S						S
6	S						S
5	P						P
4	L						L
3	A						A
2	L						L
1	A	S					Q
1	G						G
2	D						D
3	T						T
4	Q	R					Q
5	P						P
6	R						R
7	F						F
8	L						L
9	E	K	W				Q
10	E	Q	Y				Q
11	D	G	L	P	S	V	Q
12	K	T					Q
13	F	G	H	R	S	Y	Q
14	E	K					Q
15	C						C
16	H	Q	Y				Q
17	F						F
18	F						F
19	N						N
20	G						G
21	T						T
22	E						E
23	R						R
24	V						V
25	Q	R					Q
26	F	L	Y				Q
27	L						L
28	D	E	H				Q
29	R						R
30	C	G	H	L	R	Y	Q

Diagram 111

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
31	F	I	V				()
32	H	Y					()
33	H	N					()
34	Q						Q
35	E						E
36	E						E
37	F	L	N	S	Y		()
38	A	L	V				()
39	R						R
40	F	Y					()
41	D						D
42	S						S
43	D						D
44	V						V
45	G						G
46	E						E
47	F	Y					()
48	R						R
49	A						A
50	V						V
51	T						T
52	E						E
53	L						L
54	G						G
55	R						R
56	P						P
57	A	D	S	V			()
58	A	E					()
59	E						E
60	H	S	Y				()
61	W						W
62	N						N
63	S						S
64	Q						Q
65	K						K
66	D						D
67	F	I	L				()
68	L						L
69	E						E
70	D	Q	R				()
71	A	E	K	R			()
72	R						R
73	A	G					()
74	A	E	L	Q	R		()
75	V						V
76	D						D
77	N	T					()
78	V	Y					()
79	C						C
80	R						R
81	H						H
82	N						N
83	Y						Y
84	G						G
85	A	V					()
86	G	V					()
87	E						E
88	S						S
89	F						F

Diagram 112

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
90	T						T
91	V						V
92	Q						Q
93	R						R
94	R						R
95	V						V
96	E	H	Q	Y			Q
97	P						P
98	E	K					Q
99	V						V
100	T						T
101	V						V
102	Y						Y
103	P						P
104	A	S					Q
105	K						K
106	T						T
107	Q						Q
108	P						P
109	L						L
110	Q						Q
111	H						H
112	H						H
113	N						N
114	L						L
115	L						L
116	V						V
117	C						C
118	S						S
119	V						V
120	N	S					Q
121	F						F
122	G						G
123	Y						Y
124	P						P
125	G						G
126	S						S
127	I						I
128	E						E
129	V						V
130	R						R
131	W						W
132	F						F
133	L	R					Q
134	N						N
135	G						G
136	Q						Q
137	E						E
138	E						E
139	K						K
140	A	T					Q
141	G						G
142	M	V					Q
143	V						V
144	S						S
145	T						T
146	G						G
147	L						L
148	I						I

Diagram 113

Position	Diverse Amino Acid					Amino Acid Configuration to Inhibit Metastases
149	H	Q				()
150	N					N
151	G					G
152	D					D
153	W					W
154	T					T
155	F					F
156	Q					Q
157	T					T
158	L					L
159	V					V
160	M					M
161	L					L
162	E					E
163	T					T
164	F	V				()
165	P					P
166	Q	R				()
167	S					S
168	G					G
169	E					E
170	V					V
171	Y					Y
172	T					T
173	C					C
174	Q					Q
175	V					V
176	E					E
177	H					H
178	P					P
179	S					S
180	L	V				()
181	M	T				()
182	S					S
183	P					P
184	L					L
185	T					T
186	V					V
187	E					E
188	W					W
189	R	S				()
190	A					A
191	R					R
192	S					S
193	E					E
194	S					S
195	A					A
196	Q					Q
197	S					S
198	K					K
199	M					M
200	L					L
201	S					S
202	G					G
203	V					V
204	G					G
205	G					G
206	F					F
207	V					V

Diagram 114

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases
208	L						L
209	G						G
210	L						L
211	L						L
212	F						F
213	L						L
214	G						G
215	A						A
216	G						G
217	L						L
218	F						F
219	I						I
220	Y						Y
221	F						F
222	R						R
223	N						N
224	Q						Q
225	K						K
226	G						G
227	H						H
228	S						S
229	G						G
230	L						L
231	P	Q					()
232	P						P
233	R	T					()
234	G						G
235	F						F
236	L						L
237	S						S

Diagram 115

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
29	M						M
28	M						M
27	V						V
26	L						L
25	Q						Q
24	V						V
23	S						S
22	A						A
21	A						A
20	P						P
19	R						R
18	T						T
17	V						V
16	A						A
15	L						L
14	T						T
13	A						A
12	L						L
11	L						L
10	M						M
9	V						V
8	L						L
7	L						L
6	T						T
5	S						S
4	V						V
3	V						V
2	Q						Q
1	G						G
1	R						R
2	A						A
3	T						T
4	P						P
5	E						E
6	N						N
7	Y						Y
8	L	V					LL
9	F	H	Y				()
10	Q						Q
11	G	L					LL
12	R						R
13	Q						Q
14	E						E
15	C						C
16	Y						Y
17	A						A
18	F						F
19	N						N
20	G						G
21	T						T
22	Q						Q
23	R						R
24	F						F
25	L						L
26	E						E
27	R						R
28	Y						Y
29	I						I
30	Y						Y

Diagram 116

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
31	N						N
32	R						R
33	E						E
34	E						E
35	F	L	Y				()
36	A	V					()
37	R						R
38	F						F
39	D						D
40	S						S
41	D						D
42	V						V
43	G						G
44	E						E
45	F						F
46	R						R
47	A						A
48	V						V
49	T						T
50	E						E
51	L						L
52	G						G
53	R						R
54	P						P
55	A	D	E				()
56	A	E					()
57	D	E					EE
58	Y						Y
59	W						W
60	N						N
61	S						S
62	Q						Q
63	K						K
64	D						D
65	F	I	L				()
66	L						L
67	E						E
68	E						E
69	E	K					()
70	R						R
71	A						A
72	V						V
73	P						P
74	D						D
75	R						R
76	I	M	V				II
77	C						C
78	R						R
79	H						H
80	N						N
81	Y						Y
82	E						E
83	L						L
84	D	G					GG
85	E	G					GG
86	A	P					MM
87	M	V					MM
88	T						T
89	L						L

Diagram 117

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
90	Q						Q
91	R						R
92	R						R
93	V						V
94	Q						Q
95	P						P
96	K	R					Q
97	V						V
98	N						N
99	V						V
100	S						S
101	P						P
102	S						S
103	K						K
104	K						K
105	G						G
106	P						P
107	L						L
108	Q						Q
109	H						H
110	H						H
111	N						N
112	L						L
113	L						L
114	V						V
115	C						C
116	H						H
117	V						V
118	T						T
119	D						D
120	F						F
121	Y						Y
122	P						P
123	G						G
124	S						S
125	I						I
126	Q						Q
127	V						V
128	R						R
129	W						W
130	F						F
131	L						L
132	N						N
133	G						G
134	Q						Q
135	E						E
136	E						E
137	T						T
138	A						A
139	G						G
140	V						V
141	V						V
142	S						S
143	T						T
144	N						N
145	L						L
146	I						I
147	R						R
148	N						N

Diagram 118

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
149	G						G
150	D						D
151	W						W
152	T						T
153	F						F
154	Q						Q
155	I						I
156	L						L
157	V						V
158	M						M
159	L						L
160	E						E
161	M						M
162	T						T
163	P						P
164	Q						Q
165	Q						Q
166	G						G
167	D						D
168	V						V
169	Y						Y
170	I	T					I
171	C						C
172	Q						Q
173	V						V
174	E						E
175	H						H
176	T						T
177	S						S
178	L	M					I
179	D						D
180	S						S
181	P						P
182	V						V
183	T						T
184	V						V
185	E						E
186	W						W
187	K						K
188	A						A
189	Q						Q
190	S						S
191	D						D
192	S						S
193	A						A
194	R						R
195	S						S
196	K						K
197	T						T
198	L						L
199	T						T
200	G						G
201	A						A
202	G						G
203	G						G
204	F						F
205	V						V
206	L						L
207	G						G

Diagram 119

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
208	L						L
209	I						I
210	I						I
211	C						C
212	G						G
213	V						V
214	G						G
215	I						I
216	F						F
217	M						M
218	H						H
219	R						R
220	R						R
221	S						S
222	K						K
223	K						K
224	V						V
225	Q						Q
226	R						R
227	G						G
228	S						S
229	A						A

Diagram 120

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
32	M						M
31	S						S
30	W						W
29	K						K
28	K						K
27	A	S					()
26	L						L
25	R						R
24	I						I
23	P						P
22	G						G
21	D	G					()
20	L						L
19	R						R
18	A	V					()
17	A						A
16	T						T
15	V						V
14	T						T
13	L						L
12	M						M
11	L						L
10	A	S					()
9	I	M					()
8	L						L
7	S						S
6	S	T					()
5	L	P	S				()
4	L	V					()
3	A						A
2	E						E
1	G						G
1	R						R
2	D						D
3	P	S					()
4	P						P
5	E						E
6	D						D
7	F						F
8	V						V
9	F	L	Y				()
10	Q						Q
11	F						F
12	K						K
13	A	G					()
14	L	M					()
15	C						C
16	Y						Y
17	F						F
18	T						T
19	N						N
20	G						G
21	T						T
22	E						E
23	L	R					()
24	V						V
25	R						R
26	G	L	Y				()
27	V						V

Diagram 121

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
28	S	T					S or ()
29	R						R
30	H	S	Y				()
31	I						I
32	Y						Y
33	N						N
34	R						R
35	E						E
36	E						E
37	D	I	Y				()
38	A	V					()
39	R						R
40	F						F
41	D						D
42	S						S
43	D						D
44	V						V
45	E	G					()
46	E	V					()
47	F	Y					()
48	R						R
49	A						A
50	V						V
51	T						T
52	L	P					()
53	L	Q					()
54	G						G
55	L	P	R				()
56	L	P					()
57	A	D	S	V			()
58	A						A
59	E						E
60	Y						Y
61	W						W
62	N						N
63	S						S
64	Q						Q
65	K						K
66	D	E					()
67	I	V					()
68	L						L
69	E						E
70	E	G	R				()
71	A	D	K	T			()
72	R						R
73	A						A
74	A	E	S				()
75	L	V					()
76	D						D
77	R	T					()
78	V						V
79	C						C
80	R						R
81	H						H
82	N						N
83	Y						Y
84	E	Q					()
85	L	V					()
86	A	E	G				EG

Diagram 122

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
87	F	L	Y				()
88	R						R
89	G	T					()
90	I	T					()
91	L						L
92	Q						Q
93	R						R
94	R						R
95	V						V
96	E						E
97	P						P
98	T						T
99	V						V
100	T						T
101	I						I
102	S						S
103	P						P
104	S						S
105	R						R
106	T						T
107	E						E
108	A						A
109	L						L
110	N						N
111	H						H
112	H						H
113	N						N
114	L						L
115	L						L
116	I	V					()
117	C						C
118	S						S
119	V						V
120	T						T
121	D						D
122	F						F
123	Y						Y
124	P						P
125	A	G	S				()
126	H	Q					()
127	I						I
128	K						K
129	V						V
130	Q	R					()
131	W						W
132	F						F
133	R						R
134	N						N
135	D						D
136	Q						Q
137	E						E
138	E						E
139	T						T
140	A	T					()
141	G						G
142	V						V
143	V						V
144	S						S
145	T						T

Diagram 123

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
146	P						P
147	L						L
148	I						I
149	R						R
150	N						N
151	G						G
152	D						D
153	W						W
154	T						T
155	F						F
156	Q						Q
157	I						I
158	L						L
159	V						V
160	M						M
161	L						L
162	E						E
163	M						M
164	T						T
165	P						P
166	Q						Q
167	H	R					()
168	G						G
169	D						D
170	V						V
171	Y						Y
172	T						T
173	C						C
174	H						H
175	V						V
176	E						E
177	H						H
178	P						P
179	S						S
180	L						L
181	Q						Q
182	N	S					()
183	P						P
184	I						I
185	I	T					()
186	V						V
187	E						E
188	W						W
189	R						R
190	A						A
191	Q						Q
192	S						S
193	E						E
194	S						S
195	A						A
196	Q						Q
197	N	S					()
198	K						K
199	M						M
200	L						L
201	S						S
202	G						G
203	I	V					()
204	G						G

Diagram 124

Position	Diverse Amino Acid						Amino Acid Configuration With Less Tendency to Malignancy
205	G						G
206	F						F
207	V						V
208	L						L
209	G						G
210	L						L
211	I						I
212	F						F
213	L						L
214	G						G
215	L						L
216	G						G
217	L						L
218	I						I
219	I						I
220	H	R					O
221	H	Q					O
222	R						R
223	S						S
224	Q	R					O
225	K						K
226	G						G
227	P						P
228	Q						Q
229	G						G
230	P						P
231	P						P
232	P						P
233	A						A
234	G						G
235	L						L
236	L						L
237	H						H

Diagram 125

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases	Amino Acid Configuration to Inhibit Metastases
29	M						M	M
28	V						V	V
27	C						C	C
26	L						L	L
25	K	R					()	()
24	F	L					()	()
23	P						P	P
22	G						G	G
21	G						G	G
20	S						S	S
19	C						C	C
18	M						M	M
17	A	T					()	()
16	A	V					()	()
15	L						L	L
14	T						T	T
13	V						V	V
12	T						T	T
11	L						L	L
10	M						M	M
9	V						V	V
8	L						L	L
7	S						S	S
6	S						S	S
5	P						P	P
4	L						L	L
3	A						A	A
2	L						L	L
1	A	S					()	()
1	G						G	G
2	D						D	D
3	T						T	T
4	Q	R					()	()
5	P						P	P
6	R						R	R
7	F						F	F
8	L						L	L
9	E	K	W				()	()
10	E	Q	Y				()	()
11	D	G	L	P	S	V	()	()
12	K	T					()	()
13	F	G	H	R	S	Y	()	FF or GR
14	E	K					()	()
15	C						C	C
16	H	Q	Y				()	YY
17	F						F	F
18	F						F	F
19	N						N	N
20	G						G	G
21	T						T	T
22	E						E	E
23	R						R	R
24	V						V	V
25	Q	R					()	()
26	F	L	Y				()	()
27	L						L	L
28	D	E	H				()	()
29	R						R	R
30	C	G	H	L	R	Y	()	()

Diagram 126

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases	Amino Acid Configuration to Inhibit Metastases
31	F	I	V				()	()
32	H	Y					()	()
33	H	N					()	NN
34	Q						Q	Q
35	E						E	E
36	E						E	E
37	F	L	N	S	Y		()	()
38	A	L	V				()	()
39	R						R	R
40	F	Y					()	()
41	D						D	D
42	S						S	S
43	D						D	D
44	V						V	V
45	G						G	G
46	E						E	E
47	F	Y					()	()
48	R						R	R
49	A						A	A
50	V						V	V
51	T						T	T
52	E						E	E
53	L						L	L
54	G						G	G
55	R						R	R
56	P						P	P
57	A	D	S	V			()	()
58	A	E					()	()
59	E						E	E
60	H	S	Y				()	()
61	W						W	W
62	N						N	N
63	S						S	S
64	Q						Q	Q
65	K						K	K
66	D						D	D
67	F	I	L				()	()
68	L						L	L
69	E						E	E
70	D	Q	R				()	()
71	A	E	K	R			()	()
72	R						R	R
73	A	G					()	()
74	A	E	L	Q	R		()	()
75	V						V	V
76	D						D	D
77	N	T					()	()
78	V	Y					()	()
79	C						C	C
80	R						R	R
81	H						H	H
82	N						N	N
83	Y						Y	Y
84	G						G	G
85	A	V					()	()
86	G	V					()	()
87	E						E	E
88	S						S	S
89	F						F	F

Diagram 127

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases	Amino Acid Configuration to Inhibit Metastases
90	T						T	T
91	V						V	V
92	Q						Q	Q
93	R						R	R
94	R						R	R
95	V						V	V
96	E	H	Q	Y			()	()
97	P						P	P
98	E	K					()	()
99	V						V	V
100	T						T	T
101	V						V	V
102	Y						Y	Y
103	P						P	P
104	A	S					()	()
105	K						K	K
106	T						T	T
107	Q						Q	Q
108	P						P	P
109	L						L	L
110	Q						Q	Q
111	H						H	H
112	H						H	H
113	N						N	N
114	L						L	L
115	L						L	L
116	V						V	V
117	C						C	C
118	S						S	S
119	V						V	V
120	N	S					()	()
121	F						F	F
122	G						G	G
123	Y						Y	Y
124	P						P	P
125	G						G	G
126	S						S	S
127	I						I	I
128	E						E	E
129	V						V	V
130	R						R	R
131	W						W	W
132	F						F	F
133	L	R					()	()
134	N						N	N
135	G						G	G
136	Q						Q	Q
137	E						E	E
138	E						E	E
139	K						K	K
140	A	T					()	()
141	G						G	G
142	M	V					()	()
143	V						V	V
144	S						S	S
145	T						T	T
146	G						G	G
147	L						L	L
148	I						I	I

Diagram 128

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases	Amino Acid Configuration to Inhibit Metastases
149	H	Q					()	()
150	N						N	N
151	G						G	G
152	D						D	D
153	W						W	W
154	T						T	T
155	F						F	F
156	Q						Q	Q
157	T						T	T
158	L						L	L
159	V						V	V
160	M						M	M
161	L						L	L
162	E						E	E
163	T						T	T
164	F	V					()	()
165	P						P	P
166	Q	R					()	()
167	S						S	S
168	G						G	G
169	E						E	E
170	V						V	V
171	Y						Y	Y
172	T						T	T
173	C						C	C
174	Q						Q	Q
175	V						V	V
176	E						E	E
177	H						H	H
178	P						P	P
179	S						S	S
180	L	V					()	()
181	M	T					()	()
182	S						S	S
183	P						P	P
184	L						L	L
185	T						T	T
186	V						V	V
187	E						E	E
188	W						W	W
189	R	S					()	()
190	A						A	A
191	R						R	R
192	S						S	S
193	E						E	E
194	S						S	S
195	A						A	A
196	Q						Q	Q
197	S						S	S
198	K						K	K
199	M						M	M
200	L						L	L
201	S						S	S
202	G						G	G
203	V						V	V
204	G						G	G
205	G						G	G
206	F						F	F
207	V						V	V

Diagram 129

Position	Diverse Amino Acid						Amino Acid Configuration to Inhibit Metastases	Amino Acid Configuration to Inhibit Metastases
208	L						L	L
209	G						G	G
210	L						L	L
211	L						L	L
212	F						F	F
213	L						L	L
214	G						G	G
215	A						A	A
216	G						G	G
217	L						L	L
218	F						F	F
219	I						I	I
220	Y						Y	Y
221	F						F	F
222	R						R	R
223	N						N	N
224	Q						Q	Q
225	K						K	K
226	G						G	G
227	H						H	H
228	S						S	S
229	G						G	G
230	L						L	L
231	P	Q					()	()
232	P						P	P
233	R	T					()	()
234	G						G	G
235	F						F	F
236	L						L	L
237	S						S	S